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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2019 United States Special Operations Command **Date:** February 2018

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>
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COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
Total Program Element	68.917	67.086	45.935	46.942	11.040	57.982	68.336	45.098	32.964	41.535	Continuing	Continuing
D476: <i>Military Information Support Operations</i>	11.647	3.176	4.843	3.942	-	3.942	2.950	2.958	1.792	1.828	Continuing	Continuing
S375: <i>Weapons Systems</i>	1.982	1.422	1.480	1.198	-	1.198	1.633	1.611	1.535	1.566	Continuing	Continuing
S385: <i>Soldier Protection and Survival Systems</i>	7.179	10.376	2.852	7.901	3.000	10.901	8.851	4.785	4.744	4.834	Continuing	Continuing
S385A: <i>Body Armor and Associated Equipment</i>	4.945	1.385	1.289	1.048	-	1.048	1.760	1.746	1.701	1.735	Continuing	Continuing
S395: <i>Visual Augmentation, Lasers and Sensor Systems</i>	4.010	7.373	1.517	1.257	-	1.257	1.727	1.698	1.620	1.652	Continuing	Continuing
S700: <i>Communications Equipment and Electronics Systems</i>	12.606	9.037	12.864	13.966	-	13.966	16.605	16.773	11.729	11.965	Continuing	Continuing
S710: <i>Tactical Systems Development</i>	1.812	1.083	2.416	4.240	-	4.240	3.328	3.359	3.117	3.180	Continuing	Continuing
S725: <i>Tactical Radio Systems</i>	9.684	3.620	13.183	4.660	-	4.660	10.691	7.286	1.871	1.909	Continuing	Continuing
S800: <i>Munitions Advanced Development</i>	15.052	29.614	5.491	8.730	8.040	16.770	20.791	4.882	4.855	12.866	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

This program element provides for development, testing and integration of specialized equipment in the areas of automation, communication, radio, weapon, soldier protection and survival, visual augmentation, lasers and sensors, munition and Military Information Support Operations (MISO) systems. Warrior Systems specialized equipment will permit small, highly trained forces to conduct required operations across the entire spectrum of conflict. Special Operation Forces (SOF) must infiltrate by land, sea, and air to conduct unconventional warfare, direct action, or deep reconnaissance operations in denied areas against insurgent units, terrorists, or highly sophisticated threat forces. The requirement to operate in denied areas controlled by a sophisticated threat mandates that SOF systems remain technologically superior to threat forces to ensure mission success. The efforts within this PE improve SOF warfighting capabilities by continuing efforts to develop smaller, lighter, more efficient and more robust capabilities. The SOF mission mandates that SOF systems remain technologically superior to any threat to provide a maximum degree of survivability while, generally, being conducted in harsh environments for unspecified periods and in locations requiring small unit autonomy. Communications efforts will maintain a Command, Control, and Communications (C3) link between SOF Commanders and SOF Teams, and provide interoperability with all Services, various agencies of the U.S. Government, Air Traffic Control, commercial agencies and allied foreign forces. Efforts relating to soldier protection and survival requirements will improve

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<p>survivability and mobility of SOF while conducting varied missions. Specialized visual augmentation, lasers and sensors will permit small, highly trained forces to conduct required operations across the entire spectrum of conflict. Munition efforts include advanced engineering operational system development and qualification efforts related to SOF-peculiar munitions and equipment. Additionally, MISO efforts include planned operations to convey selected information and indicators to foreign audiences to influence their emotions, motives, objective reasoning, and ultimately, the behavior of foreign governments, organizations, groups and individuals.</p> <p>MISO: This project provides for the development, test and integration of MISO equipment. MISO are planned operations to convey selected information and indicators to foreign audiences to influence their emotions, motives, objective reasoning, and ultimately, the behavior of foreign governments, organizations, groups, and individuals. This project funds transformational systems and equipment to conduct the seven phase MISO process (planning, targeting audience analysis, series development, product development and design, approval, production/distribution/dissemination, and measures of effectiveness) in support of combatant commanders.</p> <p>Weapons Systems: This project provides for next generation system development and pre-planned product improvements (P3I), testing, and integration of specialized weapon systems and weapon accessories to meet the unique requirements of SOF. Efforts include muzzle brakes and suppressors, and P3I for assault, sniper, and crew served weapons leveraging the latest technological advances to achieve overmatch capability against emerging threats.</p> <p>Soldier Protection and Survival Systems: This project provides for the development, testing, integration, and evaluation of specialized equipment, to meet the unique soldier protection and survival requirements of SOF in varied missions; counter-improvised explosive device systems, to meet continually emerging Counter RC-IED threats; and signature reducing materials and technologies, to reduce the probability of detection by battlefield threat sensors.</p> <p>Body Armor and Associated Equipment: This project provides specialized equipment with ballistic protection to meet the unique soldier protection and survival requirements of SOF. Specialized ballistic equipment improves survivability and load bearing equipment impacting the mobility of SOF while conducting varied missions. This project enhances the SOF Personal Equipment Advanced Requirements program by providing for the research, development, and testing of body armor plates, soft armor, helmets, eye protection, and other personal protective equipment to meet current ballistic threats that exist on the battlefield.</p> <p>Visual Augmentation, Lasers and Sensor Systems: This project provides for development, testing, and integration of specialized visual augmentation, laser and sensor systems equipment to meet the unique requirements of SOF. Programs in this area include binocular/monocular devices and visual augmentation to include next generation laser designation and geo-location systems.</p> <p>Communications Equipment and Electronics Systems: This project provides for communication systems to meet emergent requirements to support SOF. SOF units require communications equipment that improves their warfighting capability without degrading their mobility. SOF Communications Equipment and Electronics is a continuing effort to develop smaller, lighter, more efficient and more robust SOF Command, Control, Communications, and Computer (C4) capabilities.</p>		

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## Tactical Systems Development:

This project provides for development, testing, and integration of specialized automation equipment to meet the unique requirements of SOF. Tactical systems provide forward deployed forces with advanced networking, automated data processing, storage, and display capabilities to support situational awareness, mission planning and execution, and command and control (C2) of forces.

## Tactical Radio Systems:

This project is for the development of all SOF tactical radio programs. SOF units require radio communication equipment that improves their warfighting capability without degrading their mobility. United States Special Operations Command (USSOCOM) has developed an overall strategy to ensure that Tactical Radio Systems continue to provide SOF with the required capabilities throughout the 21st century. SOF Tactical Radios provide the critical C3 link between SOF Commanders and SOF Teams involved in operational missions and training exercises. They also provide interoperability with all Services, various agencies of the U.S. Government, Air Traffic Control, commercial agencies, and allied/coalition forces. Tactical Radios rapidly and seamlessly establish and maintain mobile and fixed C2 communications between infiltrated/operational elements and higher echelon headquarters, allowing SOF to operate with any force combination in multiple environments.

## Munitions Development:

This project provides for the advanced engineering, operational system development, and qualification efforts related to SOF-peculiar and Foreign/Non-standard munitions and equipment. Funding supports development of Insensitive Munitions (IM) technology and evaluation, in accordance with statutory requirement set forth in U.S. Code, Title 10, Chapter 141, Section 2389 (December 2001). Testing is in accordance with the USSOCOM IM Strategic Plan. Funding also supports efforts to develop and improve Stand-Off Precision Guided Munitions (SOPGM), including the development and integration of improved warheads, seeker, guidance navigation and control systems, operational flight software and missile delivery to meet SOF requirements. Provides for testing and integration of Lethal Miniature Aerial Munition Systems (LMAMS) onto SOF-unique platforms to meet the operational needs of the SOF operator in high threat environments.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019 Base</b>	<b>FY 2019 OCO</b>	<b>FY 2019 Total</b>
Previous President's Budget	45.285	45.935	32.761	-	32.761
Current President's Budget	67.086	45.935	46.942	11.040	57.982
Total Adjustments	21.801	0.000	14.181	11.040	25.221
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	21.000	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	3.233	-			
• SBIR/STTR Transfer	-2.432	-			
• Other Adjustments	-	-	14.181	11.040	25.221

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2019 United States Special Operations Command		<b>Date:</b> February 2018	
<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>		<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	
<b><u>Congressional Add Details (\$ in Millions, and Includes General Reductions)</u></b>		<b>FY 2017</b>	<b>FY 2018</b>
<b>Project:</b> S395: <i>Visual Augmentation, Lasers and Sensor Systems</i>			
Congressional Add: <i>Visual Augmentation Systems (VAS)</i>		2.880	-
Congressional Add Subtotals for Project: S395		2.880	-
<b>Project:</b> S800: <i>Munitions Advanced Development</i>			
Congressional Add: <i>SOPGM</i>		11.563	-
Congressional Add: <i>LMAMS</i>		5.809	-
Congressional Add Subtotals for Project: S800		17.372	-
Congressional Add Totals for all Projects		20.252	-
<b><u>Change Summary Explanation</u></b>			
Funding:			
FY 2017: Net increase of \$21.801 million is due to Congressional adds for Visual Augmentation System (VAS) (\$3.000 million) and two Munitions Advanced Development (\$18.000 million), a decrease for a transfer to Small Business Innovative Research/Small Business Technology Transfer programs (-\$2.432 million), reprogramming increases in projects S385 for Counter Radio Controlled Improvised Explosive Device (\$7.501 million), S385A Body Armor and associated Equipment (\$0.100 million), S395 VAS (\$3.087 million), and reprogramming decreases to projects S710 Communications Equipment and Electronics Systems (-\$1.472 million), D476 MISO (-\$1.384 million), S725 Tactical Radio Systems (-\$0.139 million), S800 Munitions Advanced Development (-\$4.460 million) for higher Command priorities.			
FY 2018: None.			
FY 2019: Net increase of \$14.181 million is due FY 2019 funding request reduction of -\$2.634 million to account for the availability or prior year execution balances, a -\$0.123 million decrease for a Department economic assumptions, a \$1.284 million reprogramming increase in project D476 MISO for the Long-Range Broadcast System, a \$5.624 million increase in project S385.PR Soldier Protection and Survival Systems for Personal Signature Management and Tactical Casualty Combat Care, a \$1.925 million increase in project S710.PR Tactical Systems Development, secure wireless and cross domain solution on TACLAN modular systems, and a \$8.105 million increase to project S800 Advanced Munitions Development for engineering, integration and testing.			
FY2019 Overseas Contingency Operations (OCO): Increase of \$11.040 million due to \$8.040 million increase of OCO funding in project S800 Advanced Munitions Development for SOPGM and a \$3.000 million increase of OCO funding in project S385 Soldier Protection and Survival Systems.			
Schedule: None.			

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2019 United States Special Operations Command		<b>Date:</b> February 2018
<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7:</i> <i>Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	
<div style="margin-bottom: 20px;">Technical: None.</div>		

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Exhibit R-2A, RDT&E Project Justification: PB 2019 United States Special Operations Command										Date: February 2018		
Appropriation/Budget Activity 0400 / 7					R-1 Program Element (Number/Name) PE 1160431BB / Warrior Systems				Project (Number/Name) D476 / Military Information Support Operations			
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
D476: Military Information Support Operations	11.647	3.176	4.843	3.942	-	3.942	2.950	2.958	1.792	1.828	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

This project provides for the development and acquisition of Military Information Support Operations (MISO) equipment. MISO are planned operations to convey selected information and indicators to foreign audiences to influence their emotions, motives, objective reasoning, and ultimately, the behavior of foreign governments, organizations, groups, and individuals. This project funds transformational systems and equipment to conduct MISO in support of combatant commanders.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019 Base</b>	<b>FY 2019 OCO</b>	<b>FY 2019 Total</b>
<b>Title:</b> Multi-Mission Payload (MMP) formerly know as Long Range Broadcast System (LRBS)  <b>Description:</b> The MMP is a family of broadcast systems intended to be integrated into multiple manned and unmanned, long-loiter aerial systems with the capability of broadcasting in AM, FM, SW, TV, Very High Frequency (VHF), TV Ultra High Frequency (UHF) and cellular (Short Message Service, Multi-Media Messaging Service, and Voice). This system provides the capability of broadcasting MISO messages via multiple mediums into permissive, semi-permissive, and denied foreign areas.  <b>FY 2018 Plans:</b> Continue with primary development, systems engineering, and test and evaluation of pod-based cellular and television broadcast, power, and antenna technologies.  <b>FY 2019 Base Plans:</b> Continues with primary development, systems engineering, and test and evaluation of pod-based cellular and television broadcast, power, and antenna technologies.  <b>FY 2018 to FY 2019 Increase/Decrease Statement:</b> Increase of \$0.584 million is due to expanded development testing.	1.502	1.632	2.181	-	2.181
<b>Title:</b> Fly-Away Broadcast System (FABS)  <b>Description:</b> FABS is a transit case fly-away broadcast system that consists of a combination of AM, FM, SW, cellular, and TV transmitters.  <b>FY 2018 Plans:</b>	1.674	2.757	0.900	-	0.900

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Appropriation/Budget Activity 0400 / 7		R-1 Program Element (Number/Name) PE 1160431BB / Warrior Systems		Project (Number/Name) D476 / Military Information Support Operations		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Continue testing and evaluation of new systems and components to enhance MISO broadcasts. Continue with primary hardware development to reduce broadcast system weight and size while adding multi-mission capabilities. <b>FY 2019 Base Plans:</b> Continues testing and evaluation of new systems and components to enhance MISO broadcasts. Continues with primary hardware development to reduce broadcast system weight and size while adding multi-mission capabilities. <b>FY 2018 to FY 2019 Increase/Decrease Statement:</b> Decrease of -\$1.857 million due to a realignment to higher command priorities.						
<b>Title:</b> Next Generation Loud Speakers (NGLS) <b>Description:</b> Family of Loudspeakers (FOL) are portable loudspeaker systems that are capable of disseminating high quality recorded and live audio messages by MISO forces in varied geographical areas and climate conditions. The new variant of the FOL is the NGLS. The NGLS consists of Dismounted and Mounted variants that are lighter, smaller, and louder than legacy speaker systems, with added clarity and durability. A variant of the NGLS, the Scatterable Media, Distributed Audio Media System (DAMS) is a hand-emplaced or air-delivered printed audio-visual device for disseminating delayed or on-cue messages to foreign target audiences. <b>FY 2018 Plans:</b> Begin development of new systems and components to enhance MISO broadcasts. Focuses on wireless, Common Operating Picture (COP), and Mobile Ad Hoc Network development to reduce broadcast system weight and size while adding multi-mission capabilities. <b>FY 2019 Base Plans:</b> Continues testing and evaluation of new systems and components to enhance MISO broadcasts. Focuses on wireless, COP, and Mobile Ad Hoc Network development to reduce broadcast system weight and size while adding multi-mission capabilities. Begins development of scatterable media capabilities. <b>FY 2018 to FY 2019 Increase/Decrease Statement:</b> Decrease of -\$0.866 million is due to a realignment to higher command priorities.		-	0.454	0.861	-	0.861
Accomplishments/Planned Programs Subtotals		3.176	4.843	3.942	-	3.942

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2019 United States Special Operations Command							<b>Date:</b> February 2018	
<b>Appropriation/Budget Activity</b> 0400 / 7				<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>			<b>Project (Number/Name)</b> D476 / <i>Military Information Support Operations</i>	

**C. Other Program Funding Summary (\$ in Millions)**

<u>Line Item</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u> <u>Base</u>	<u>FY 2019</u> <u>OCO</u>	<u>FY 2019</u> <u>Total</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• PROC1/0204OTHER: OTHER ITEMS <\$5M	77.231	54.592	112.117	7.700	119.817	94.206	95.898	89.320	85.302	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**

- The MMP program has an evolutionary acquisition strategy. Commercial and government agency sources will be leveraged for required certifications, functional and operational tests, and acceptance support.
- The FABS program has an evolutionary acquisition strategy. Commercial and government agency sources will be leveraged for required certifications, functional and operational tests, and acceptance support.
- The FOL program has an evolutionary acquisition strategy for the Next Generation Load Speaker (NGLS). Commercial and government agency sources will be leveraged for required certifications, functional and operational tests, and acceptance support.

**E. Performance Metrics**

N/A



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Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 United States Special Operations Command												Date: February 2018			
Appropriation/Budget Activity 0400 / 7						R-1 Program Element (Number/Name) PE 1160431BB / Warrior Systems				Project (Number/Name) D476 / Military Information Support Operations					
Product Development (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Multi-Mission Payload (MMP)	MIPR	NSWC-Crane : Crane, IN	5.335	1.502	Feb 2017	1.532	Jan 2018	2.038	Jan 2019	-		2.038	Continuing	Continuing	-
Fly Away Broadcast Systems (FABS)	Reqn	JHU/APL : Laurel, MD	-	1.674	Feb 2017	2.757	Jan 2018	0.900	Jan 2019	-		0.900	Continuing	Continuing	-
Next Generation Loud Speakers (NGLS)	Allot	SOFSA : Lexington, KY	-	-		0.454	Jan 2018	0.761	Jan 2019	-		0.761	Continuing	Continuing	-
Prior Year	C/Various	Various : Various	5.846	-		-		-		-		-	Continuing	Continuing	-
Subtotal			11.181	3.176		4.743		3.699		-		3.699	Continuing	Continuing	N/A
Test and Evaluation (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
MMP	MIPR	NSCW-Crane : Crane, IN	0.341	-		0.100	Jan 2018	0.143	Jan 2019	-		0.143	Continuing	Continuing	-
NGLS	Allot	SOFSA : Lexington, KY	-	-		-		0.100	Feb 2019	-		0.100	Continuing	Continuing	-
Prior Year	MIPR	Various : Various	0.125	-		-		-		-		-	Continuing	Continuing	-
Subtotal			0.466	-		0.100		0.243		-		0.243	Continuing	Continuing	N/A
			Prior Years	FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			11.647	3.176		4.843		3.942		-		3.942	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2019 United States Special Operations Command

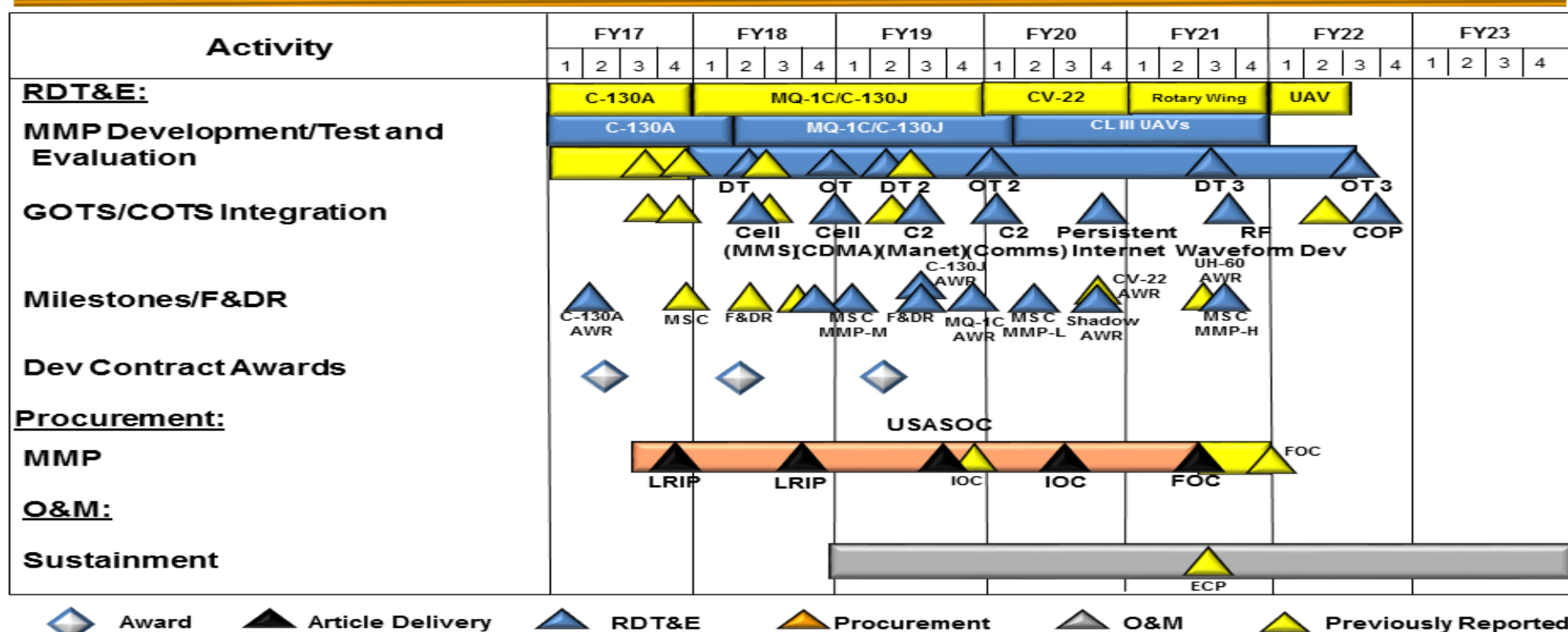
Date: February 2018

Appropriation/Budget Activity  
0400 / 7

R-1 Program Element (Number/Name)  
PE 1160431BB / Warrior Systems

Project (Number/Name)  
D476 / Military Information Support Operations

## MMP Schedule



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Exhibit R-4, RDT&E Schedule Profile: PB 2019 United States Special Operations Command

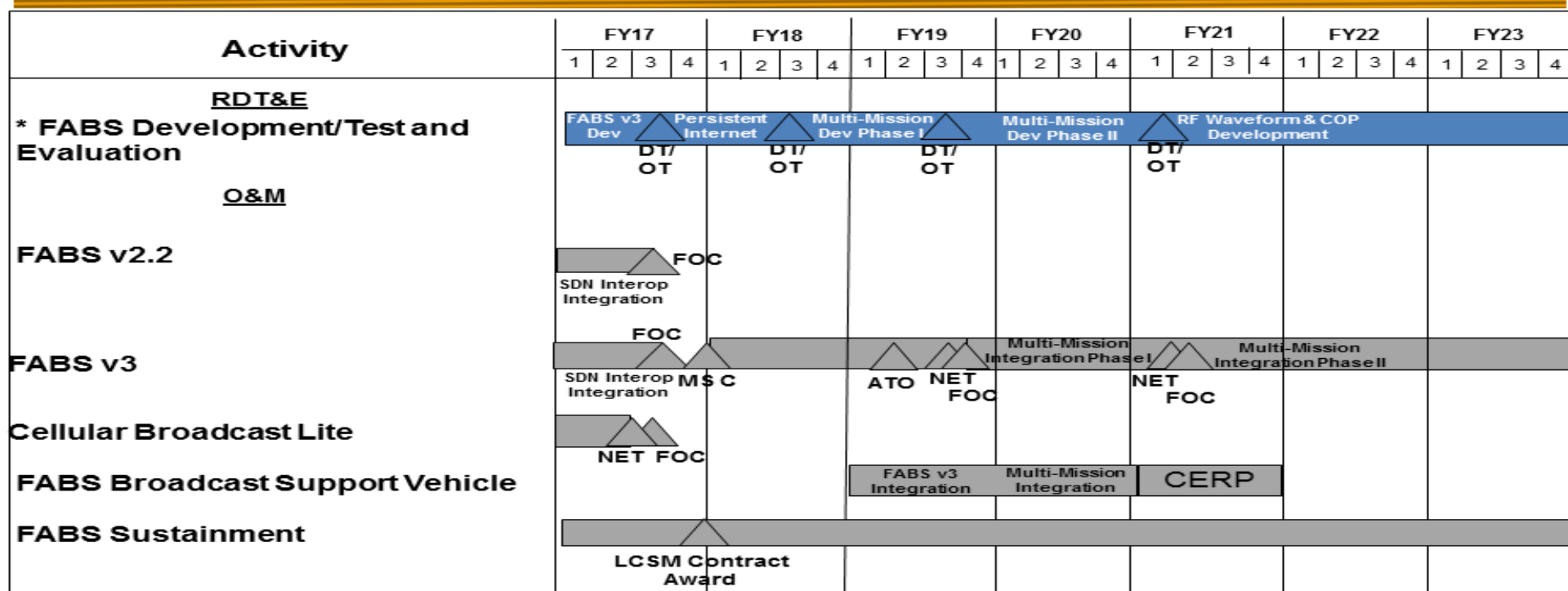
Date: February 2018

Appropriation/Budget Activity  
0400 / 7

R-1 Program Element (Number/Name)  
PE 1160431BB / Warrior Systems

Project (Number/Name)  
D476 / Military Information Support  
Operations

## Fly Away Broadcast System Schedule



 Article Award   
 Article Delivery   
 RDT&E   
 Procurement   
 O&M   
 Previously Reported

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Exhibit R-4, RDT&E Schedule Profile: PB 2019 United States Special Operations Command

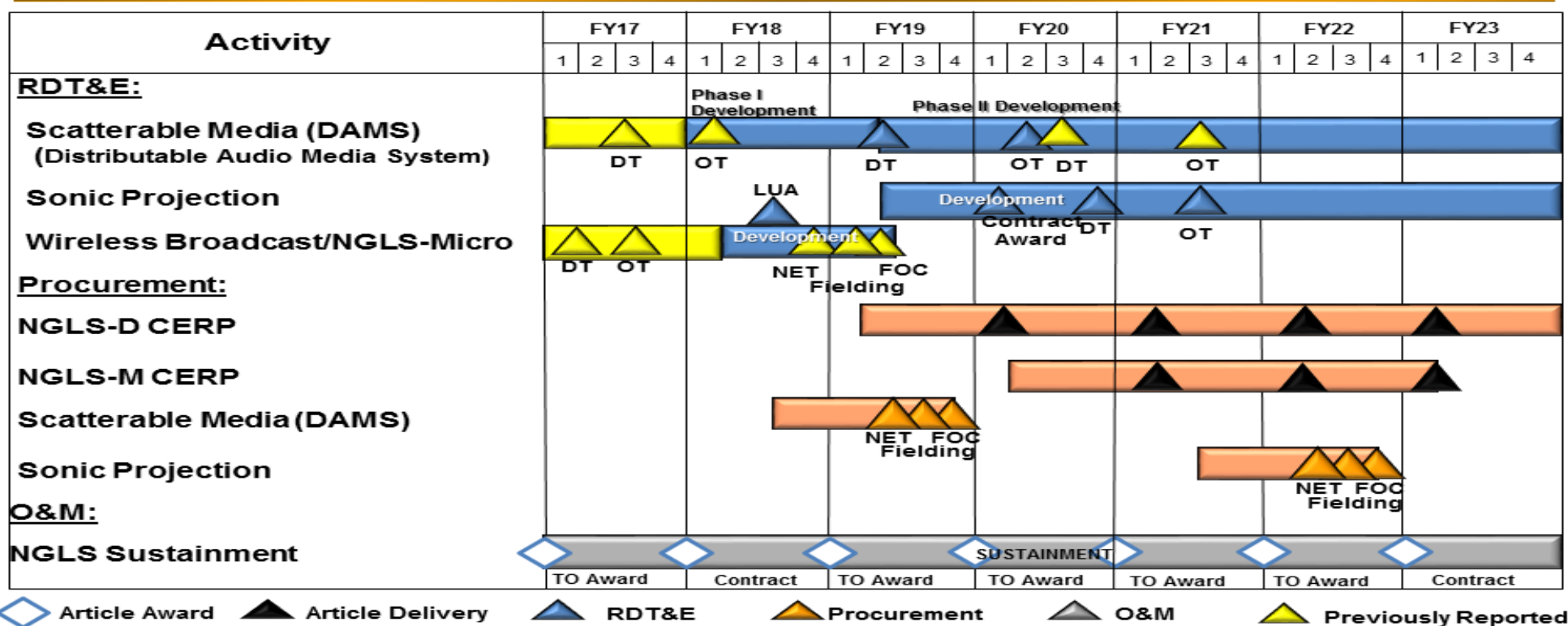
Date: February 2018

Appropriation/Budget Activity  
0400 / 7

R-1 Program Element (Number/Name)  
PE 1160431BB / Warrior Systems

Project (Number/Name)  
D476 / Military Information Support  
Operations

## Next Generation Loudspeaker System Schedule



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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2019 United States Special Operations Command			<b>Date:</b> February 2018
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> D476 / <i>Military Information Support Operations</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Multi-Mission Payload (MMP)</i></b>				
Development	1	2017	4	2021
Test and Evaluation	2	2018	3	2022
<b><i>Fly Away Broadcast Systems (FABS)</i></b>				
Development	1	2017	4	2023
<b><i>Next Generation Loudspeakers (NGLS)</i></b>				
Scatterable Media Development	1	2018	1	2019
Scatterable Media Test and Evaluation	2	2019	4	2023
Sonic Projection Development	2	2019	2	2020
Sonic Projection Development Test and Evaluation	3	2019	4	2023
Wireless Broadcast	2	2018	2	2019

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Exhibit R-2A, RDT&E Project Justification: PB 2019 United States Special Operations Command										Date: February 2018		
Appropriation/Budget Activity 0400 / 7					R-1 Program Element (Number/Name) PE 1160431BB / <i>Warrior Systems</i>				Project (Number/Name) S375 / <i>Weapons Systems</i>			
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
S375: <i>Weapons Systems</i>	1.982	1.422	1.480	1.198	-	1.198	1.633	1.611	1.535	1.566	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

This project provides for the development and testing of specialized, common caliber, individual, sniper, machine gun, pistol, crew served weapons systems and accessories that enable SOF to accurately engage enemy personnel and material in all SOF environments at ranges up to 1500 meters. Weapons include common caliber modular assault rifles to engage out to 600 meters, Sniper Support Rifles to engage out to 800 meters, sniper rifles to engage out to 1500 meters, shoulder fired Grenade Launchers, vehicle and man-portable high velocity grenade launchers, pistols, machine guns to engage out to 1000 meters, multi-barreled mini-guns which can be mounted on boats, vehicles, aircraft, and ground mounted to engage out to 3,500 meters.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019 Base</b>	<b>FY 2019 OCO</b>	<b>FY 2019 Total</b>
<b>Title:</b> Weapons Accessories (WPNAC)	1.422	1.480	1.198	-	1.198
<b>Description:</b> WPNAC are used on both service-common and SOF weapons, enabling the operator to tailor the configuration of the weapon to the assigned mission and operational environment, enhancing the overall effectiveness of the weapons, which enables mission accomplishment and operator survivability.					
<b>FY 2018 Plans:</b> Develop enhanced capabilities to improve performance of individual sniper, rifle, and machine gun weapons.					
<b>FY 2019 Base Plans:</b> Continues development of enhanced capabilities to improve performance of individual sniper, rifle, and machine gun weapons.					
<b>FY 2018 to FY 2019 Increase/Decrease Statement:</b> Decrease of -\$0.282M to support higher command priorities.					
<b>Accomplishments/Planned Programs Subtotals</b>	1.422	1.480	1.198	-	1.198

**C. Other Program Funding Summary (\$ in Millions)**

<b>Line Item</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019 Base</b>	<b>FY 2019 OCO</b>	<b>FY 2019 Total</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• PROC/0204WARRIOR: <i>Warrior Systems &lt;\$5M</i>	266.704	272.285	438.590	21.135	459.725	293.645	304.301	282.452	295.368	Continuing	Continuing

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2019 United States Special Operations Command										<b>Date:</b> February 2018	
<b>Appropriation/Budget Activity</b> 0400 / 7				<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>				<b>Project (Number/Name)</b> S375 / <i>Weapons Systems</i>			
<b>C. Other Program Funding Summary (\$ in Millions)</b>											
			<u>FY 2019</u>	<u>FY 2019</u>	<u>FY 2019</u>					<u>Cost To</u>	
<u>Line Item</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Base</u>	<u>OCO</u>	<u>Total</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>Complete</u>	<u>Total Cost</u>
<b>Remarks</b>											
<b>D. Acquisition Strategy</b>											
Evolutionary acquisition, leveraging emerging technology. An evolutionary approach delivers capability in increments, recognizing, up front, the need for future capability improvements. Full and open competition with firm-fixed price contracts.											
<b>E. Performance Metrics</b>											
N/A											

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis:** PB 2019 United States Special Operations Command **Date:** February 2018

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S375 / <i>Weapons Systems</i>
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Test and Evaluation (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Weapon Test & Evaluation	MIPR	Various : Various	1.982	1.422	Jan 2017	1.480	Jan 2018	1.198	Jan 2019	-		1.198	Continuing	Continuing	-
<b>Subtotal</b>			1.982	1.422		1.480		1.198		-		1.198	Continuing	Continuing	N/A
			Prior Years	FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>			1.982	1.422		1.480		1.198		-		1.198	Continuing	Continuing	N/A

Remarks



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Exhibit R-4, RDT&E Schedule Profile: PB 2019 United States Special Operations Command

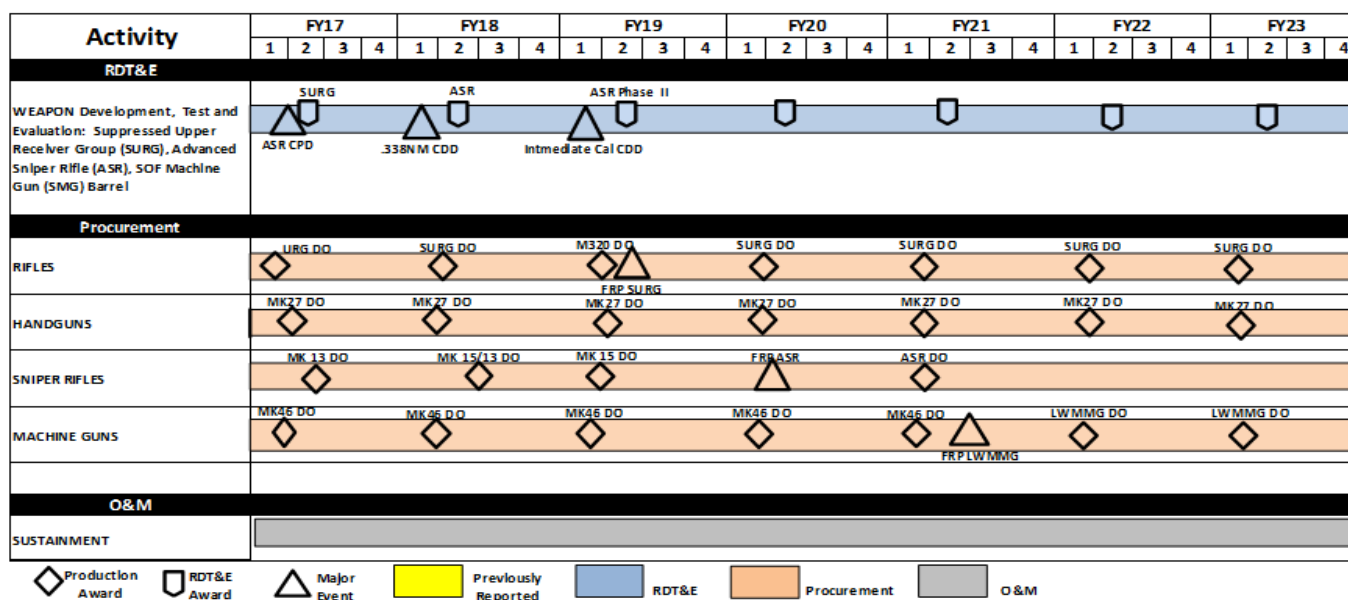
Date: February 2018

Appropriation/Budget Activity  
0400 / 7

R-1 Program Element (Number/Name)  
PE 1160431BB / Warrior Systems

Project (Number/Name)  
S375 / Weapons Systems

## Weapon Systems Schedule



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Exhibit R-4A, RDT&E Schedule Details: PB 2019 United States Special Operations Command			Date: February 2018
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160431BB / <i>Warrior Systems</i>	Project (Number/Name) S375 / <i>Weapons Systems</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Weapon Systems</i>				
WEAPON Development, Test and Evaluation: Suppressed Upper Receiver Group (SURG), Advanced Snipe Rifle (ASR), SOF Machine Gun (SMG) Barrel	2	2017	4	2023

**UNCLASSIFIED**

Exhibit R-2A, RDT&E Project Justification: PB 2019 United States Special Operations Command										Date: February 2018		
Appropriation/Budget Activity 0400 / 7					R-1 Program Element (Number/Name) PE 1160431BB / Warrior Systems				Project (Number/Name) S385 / Soldier Protection and Survival Systems			
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
S385: Soldier Protection and Survival Systems	7.179	10.376	2.852	7.901	3.000	10.901	8.851	4.785	4.744	4.834	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
This project provides development, testing, and evaluation of signature reducing materials and technology and specialized equipment to meet the unique operator protection and survival requirements for Special Operations Forces (SOF), which include: Army Rangers; Army Special Forces; Navy Sea, Air, Land (SEAL) teams; Navy Special Boat Units; Air Force Operators; and Marine Raiders. Specialized equipment improves survivability protection from the environment by providing the operator with hearing protection and clothing systems, load bearing equipment, and personnel safety equipment to improve the mobility of SOF, while conducting varied missions. Signature reducing materials and technology reduce the probability of detection by battlefield threat sensors. These missions are generally conducted in harsh environments, for unspecified periods and in locations requiring small unit autonomy.												
B. Accomplishments/Planned Programs (\$ in Millions)								FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Title: SOF Personal Equipment Advanced Requirements (SPEAR)								0.456	0.493	0.880	-	0.880
Description: The SPEAR program provides for the research, development, testing and evaluation of a variety of individual and survival equipment to include: ballistic and environmental protective combat uniforms, load carriage systems, communications headsets, and visual augmentation system mounts.												
FY 2018 Plans: Continue research and development of land communications material solutions and environmental protective combat uniforms. Continue materials testing and incorporation into commodity lines. Begin wireless headset evaluations. Complete interoperability of headsets with SOCOM handheld radios.												
FY 2019 Base Plans: Continues research and development of land communications material solutions and environmental protective combat uniforms. Continues materials testing and incorporation into commodity lines. Continues wireless headset evaluations. Continues interoperability of headsets with radios and integrated communication systems.												
FY 2018 to FY 2019 Increase/Decrease Statement: Increase of \$0.387M provides for the development and testing of wireless communications and environmental protective combat uniforms.												
Title: Tactical Combat Casualty Care (TCCC)								0.380	0.199	0.178	-	0.178

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Exhibit R-2A, RDT&E Project Justification: PB 2019 United States Special Operations Command				Date: February 2018		
Appropriation/Budget Activity 0400 / 7		R-1 Program Element (Number/Name) PE 1160431BB / Warrior Systems		Project (Number/Name) S385 / Soldier Protection and Survival Systems		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
<p><b>Description:</b> TCCC provides medical devices, ancillary equipment and Casualty Evacuation (CASEVAC) sets for SOF. The CASEVAC procures a suite of Food and Drug Administration approved medical items including, but not limited, to intraosseous infusion devices, patient monitoring and assessment devices, emergency airway kits, as well as devices that provide SOF the capability to support extraction, extrication, mobility, transportation, and sustainment of casualties in forward areas. This program fields tactical medical and CASEVAC capabilities with the intention to transition capabilities developed under the National Mission Force Tactical Medical Programs. This capability provides significant ability to lessen battlefield losses by providing timely, critical lifesaving and evacuation capabilities to the forward-deployed SOF operators.</p> <p><b>FY 2018 Plans:</b> Provide for test support to include program management, market surveys, test article acquisition, test and evaluation and systems engineering in direct support of the CASEVAC program. Support the evaluation of enhanced medical monitoring systems for incorporation into the CASEVAC program. Develop and test water resistant solutions for maritime operations of components within the CASEVAC set.</p> <p><b>FY 2019 Base Plans:</b> Continues test support to include program management, market surveys, test article acquisition, test and evaluation and systems engineering in direct support of the CASEVAC program. Continues the evaluation of enhanced medical monitoring systems for incorporation into the CASEVAC program. Continues development and testing of water resistant solutions for maritime operations of components within the CASEVAC set.</p> <p><b>FY 2018 to FY 2019 Increase/Decrease Statement:</b> The FY 2019 funding request was reduced by \$0.021 million to account for the availability of prior year execution balances.</p>						
<p><b>Title:</b> Counter Radio Controlled-Improvised Explosive Device (RC-IED)</p> <p><b>Description:</b> The Counter RC-IED program provides SOF with the ability to counter current and future RC-IED threats used by terrorist networks.</p> <p><b>FY 2018 Plans:</b> Continue NAG test support to the Counter RC-IED program. Support system engineering, test and evaluation, test article acquisition, and market research of the RC-IED programs. Maintain range effectiveness and currency, ensuring the ability to accurately test against current and emerging threat systems. Continue development and testing of ECM systems capability to include advanced software technique countermeasures</p>		9.540	2.160	5.179	3.000	8.179

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Exhibit R-2A, RDT&E Project Justification: PB 2019 United States Special Operations Command				Date: February 2018		
Appropriation/Budget Activity 0400 / 7		R-1 Program Element (Number/Name) PE 1160431BB / Warrior Systems		Project (Number/Name) S385 / Soldier Protection and Survival Systems		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
and loadsets for mounted and dismounted systems. Implement Modi software refactoring, improving stability and future technology integration.  <b>FY 2019 Base Plans:</b> Continues National Assessment Group (NAG) test support to the Counter RC-IED program. Continues system engineering, test and evaluation, test article acquisition, and market research of the RC-IED programs. Maintains range effectiveness and currency, ensuring the ability to accurately test against current and emerging threat systems. Continues development and testing of Electronic Counter Measures (ECM) systems capability to include advanced software technique countermeasures and loadsets for mounted and dismounted systems. Continues implementation of Modi software refactoring, improving stability and future technology integration.  <b>FY 2019 OCO Plans:</b> Continues the development of Counter - Unmanned Aerial Systems (C-UAS) technology and integration efforts in support of named operations.  <b>FY 2018 to FY 2019 Increase/Decrease Statement:</b> Details provided under separate cover.						
<b>Title:</b> Personal Signature Management (PSM)  <b>Description:</b> This project provides for development, test, and evaluation of signature reducing materials and technology, in order to reduce the probability of detection by battlefield threat sensors.  <b>FY 2019 Base Plans:</b> Provides research, development, test and evaluation of next generation signature reducing solutions. Provides for program management, market research, test item acquisition and test and evaluation, in support of PSM efforts for both land and maritime operations.  <b>FY 2018 to FY 2019 Increase/Decrease Statement:</b> Increase of \$1.664 million is due to a transfer of funding from Program Element 1160432BB, Special Programs, Project S500E.		-	-	1.664	-	1.664
Accomplishments/Planned Programs Subtotals		10.376	2.852	7.901	3.000	10.901

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2019 United States Special Operations Command								<b>Date:</b> February 2018		
<b>Appropriation/Budget Activity</b> 0400 / 7				<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>				<b>Project (Number/Name)</b> S385 / <i>Soldier Protection and Survival Systems</i>		

**C. Other Program Funding Summary (\$ in Millions)**

<b>Line Item</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019 Base</b>	<b>FY 2019 OCO</b>	<b>FY 2019 Total</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• PROC/0204WARRIOR: <i>Warrior Systems&lt;\$5M</i>	266.704	272.285	438.590	21.135	459.725	293.645	304.301	282.452	295.368	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**

Counter Radio Controlled - Improvised Explosive Device (RC-IED): USSOCOM collaborates with the DoD Joint CREW single manager per DODI 5101.14 and other government agencies in order to maintain Joint Force compatibility and improve program affordability. All next generation Electronic Countermeasures (ECM) development designed as National to Theater ("N-to-T") transition programs. Centralized life cycle sustainment of SOF CREW inventory supports TSOC operational demand as theater provided equipment (TPE). Evolving ECM capability to Counter Unmanned Aerial Systems (CUAS) emerging threats.

Personal Signature Management (PSM): Signature reducing technologies will be embedded into current SOF clothing and equipment or applied to modified commercial-off-the-shelf variants. Capability is not intended to replace current clothing and equipment, rather it will augment those units with a unique requirement for enhanced signature reduction. Contracts in support of fielding/sustainment of PSM clothing and equipment will be a combination of sole source firm fixed price 5-year indefinite delivery indefinite quantity contracts, Source America mandatory sole sources, small business set asides and prime vendor style multiple award contracts. PSM will utilize SOFSA for warehousing and sustainment, PM-SOF SSES has cradle to grave responsibility.

Tactical Combat Casualty Care (TCCC): Operator & Medic Kits - Program managed by PM-SOF SSES using US Army Medical Materiel Agency prime vendor contracts for equipment purchases and the Special Operations Forces Support Activity (SOFSA) for warehousing and sustainment. CASEVAC Set - Program managed by PM-SOF SSES and utilizes and Indefinite Delivery Indefinite Quantity Commercial-Off-The-Shelf prime integrator contract.

SPEAR: Contracts in support of SPEAR are a combination of firm fixed price five year indefinite delivery indefinite quantity with single vendor awards, Source America mandatory sole sources, small business set asides and prime vendor style multiple awards.

**E. Performance Metrics**

N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 United States Special Operations Command												Date: February 2018			
Appropriation/Budget Activity 0400 / 7						R-1 Program Element (Number/Name) PE 1160431BB / Warrior Systems				Project (Number/Name) S385 / Soldier Protection and Survival Systems					
Product Development (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
SOF Personal Equipment Advanced Requirements (SPEAR) - Protective Combat Uniform (PCU)	Various	PM-SSES : Natick, MA	0.331	-		0.116	Jan 2018	0.200	Jan 2019	-		0.200	Continuing	Continuing	-
SPEAR Modular Glove System (MGS)	Various	PM-SSES : Natick, MA	0.040	-		-		0.010	Jan 2019	-		0.010	Continuing	Continuing	-
SPEAR - Modular Integrated Communications Helmet/Land Maritime Communication System	Various	PM-SSES : Natick, MA	0.865	0.230	Mar 2017	0.100	Jan 2018	0.150	Feb 2019	-		0.150	Continuing	Continuing	-
SPEAR - Load Carriage System (LCS) and Backpacks	Various	PM-SSES : Natick, MA	0.035	0.010	Jan 2017	0.010	Feb 2018	0.050	Mar 2019	-		0.050	Continuing	Continuing	-
Subtotal			1.271	0.240		0.226		0.410		-		0.410	Continuing	Continuing	N/A
Test and Evaluation (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
SPEAR - PCU testing/P3I	Various	PM-SSES : Natick, MA	0.256	-		0.100	Mar 2018	0.200	Feb 2019	-		0.200	Continuing	Continuing	-
SPEAR-MGS Test and Evaluation	Various	PM-SSES : Natick, MA	0.091	-		-		0.010	Jan 2019	-		0.010	Continuing	Continuing	-
SPEAR - Maritime Comms Test and Evaluation	Various	PM-SSES : Natick, MA	1.357	0.211	Feb 2017	0.162	Jan 2018	0.210	Jan 2019	-		0.210	Continuing	Continuing	-
SPEAR - LCS/Body Armor Vest/Backpack Material and Prototype Test and Evaluation	Various	PM-SSES : Natick, MA	0.062	0.005	Jan 2017	0.005	Feb 2018	0.050	Jan 2019	-		0.050	Continuing	Continuing	-
Tactical Combat Casualty Care CASEVAC Sets	Various	PM-SSES : Natick, MA	0.995	0.380	Apr 2017	0.199	Feb 2017	0.178	Feb 2019	-		0.178	Continuing	Continuing	-

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2019 United States Special Operations Command												<b>Date:</b> February 2018			
<b>Appropriation/Budget Activity</b> 0400 / 7						<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>				<b>Project (Number/Name)</b> S385 / <i>Soldier Protection and Survival Systems</i>					
<b>Test and Evaluation (\$ in Millions)</b>															
				<b>FY 2017</b>		<b>FY 2018</b>		<b>FY 2019 Base</b>		<b>FY 2019 OCO</b>		<b>FY 2019 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Development, Test and Evaluation															
Counter Radio Controlled - Improvised Explosive Device Test and Evaluation Support	Various	National Assessment Group : Kirtland AFB	2.987	9.140	Oct 2017	2.160	Jun 2018	5.179	Jan 2019	-		5.179	Continuing	Continuing	-
Counter RC-IED Test and Evaluation (OCO)	Various	National Assessment Group : Kirkland, AFB	-	0.400	Feb 2018	-		0.000		3.000	Jun 2019	3.000	Continuing	Continuing	-
Personal Signature Management (PSM) Test and Evaluation	Various	Various : Various	-	-		-		1.664	Jan 2019	-		1.664	Continuing	Continuing	-
Prior Year	MIPR	Various : Various	0.160	-		-		-		-		-	Continuing	Continuing	-
<b>Subtotal</b>			5.908	10.136		2.626		7.491		3.000		10.491	Continuing	Continuing	N/A
			<b>Prior Years</b>	<b>FY 2017</b>		<b>FY 2018</b>		<b>FY 2019 Base</b>		<b>FY 2019 OCO</b>		<b>FY 2019 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Project Cost Totals</b>			7.179	10.376		2.852		7.901		3.000		10.901	Continuing	Continuing	N/A
<b>Remarks</b>															



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Exhibit R-4, RDT&E Schedule Profile: PB 2019 United States Special Operations Command

Date: February 2018

Appropriation/Budget Activity

0400 / 7

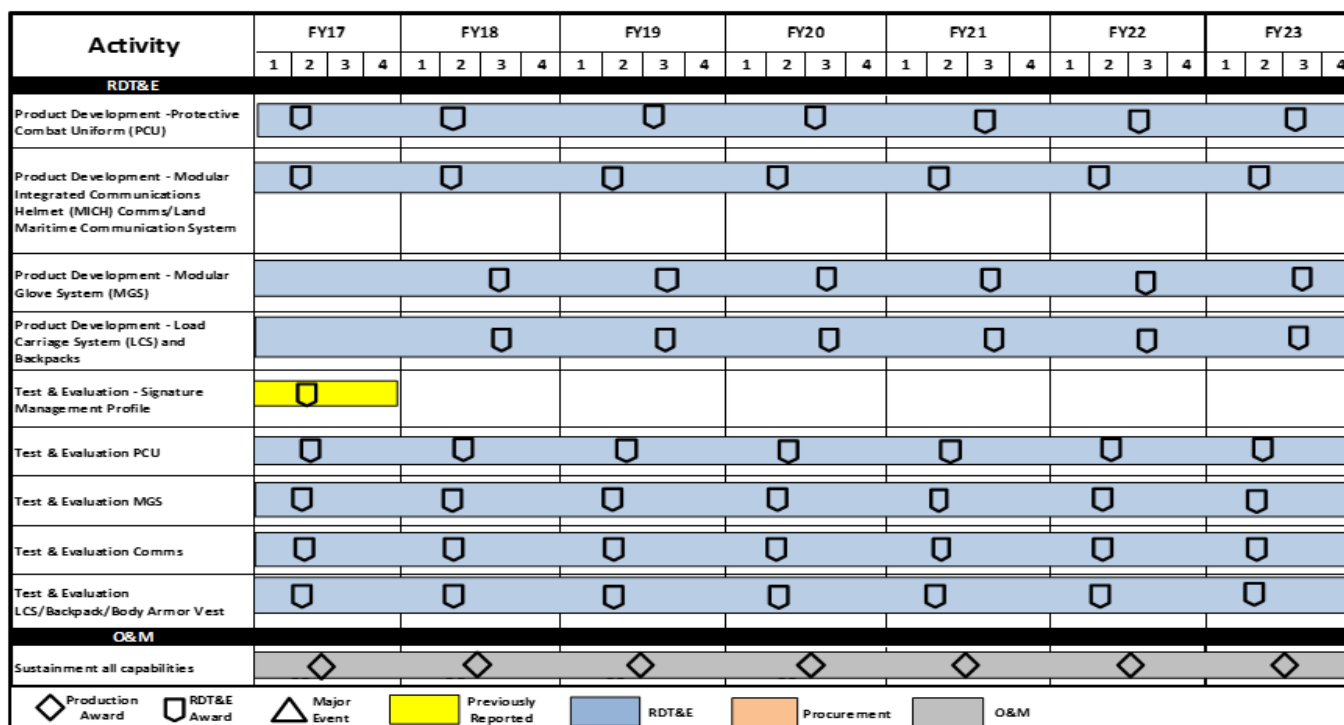
R-1 Program Element (Number/Name)

PE 1160431BB / Warrior Systems

Project (Number/Name)

S385 / Soldier Protection and Survival Systems

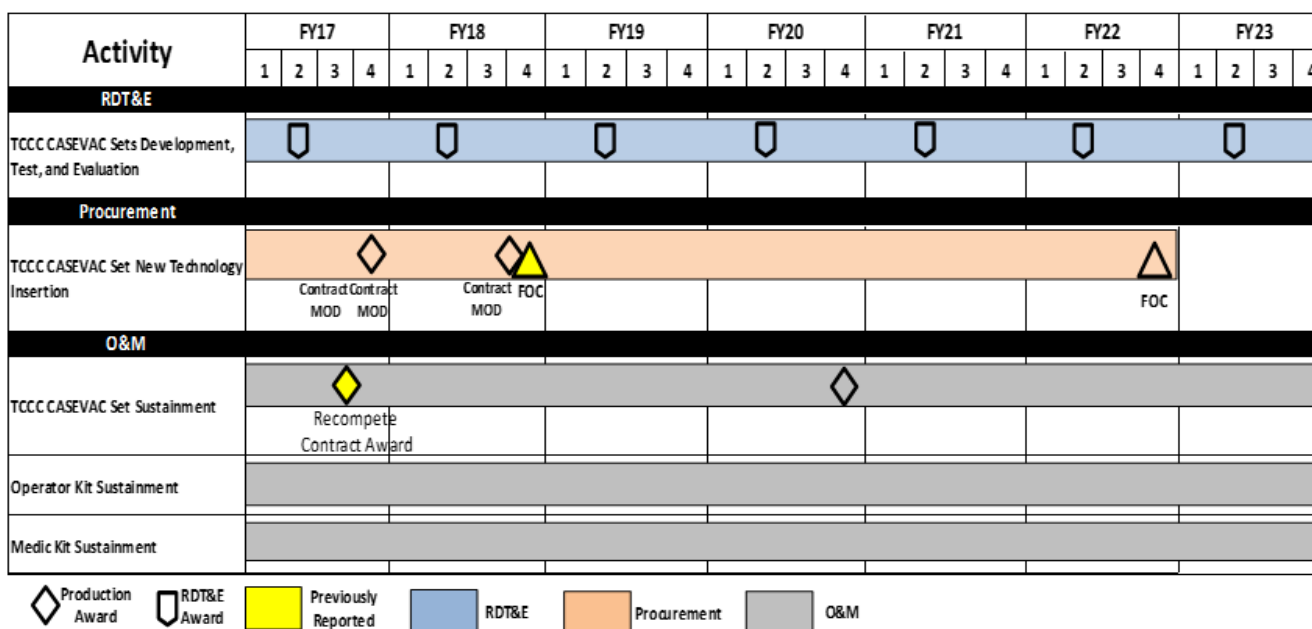
## SPEAR Schedule



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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2019 United States Special Operations Command			<b>Date:</b> February 2018
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / Warrior Systems	<b>Project (Number/Name)</b> S385 / Soldier Protection and Survival Systems	

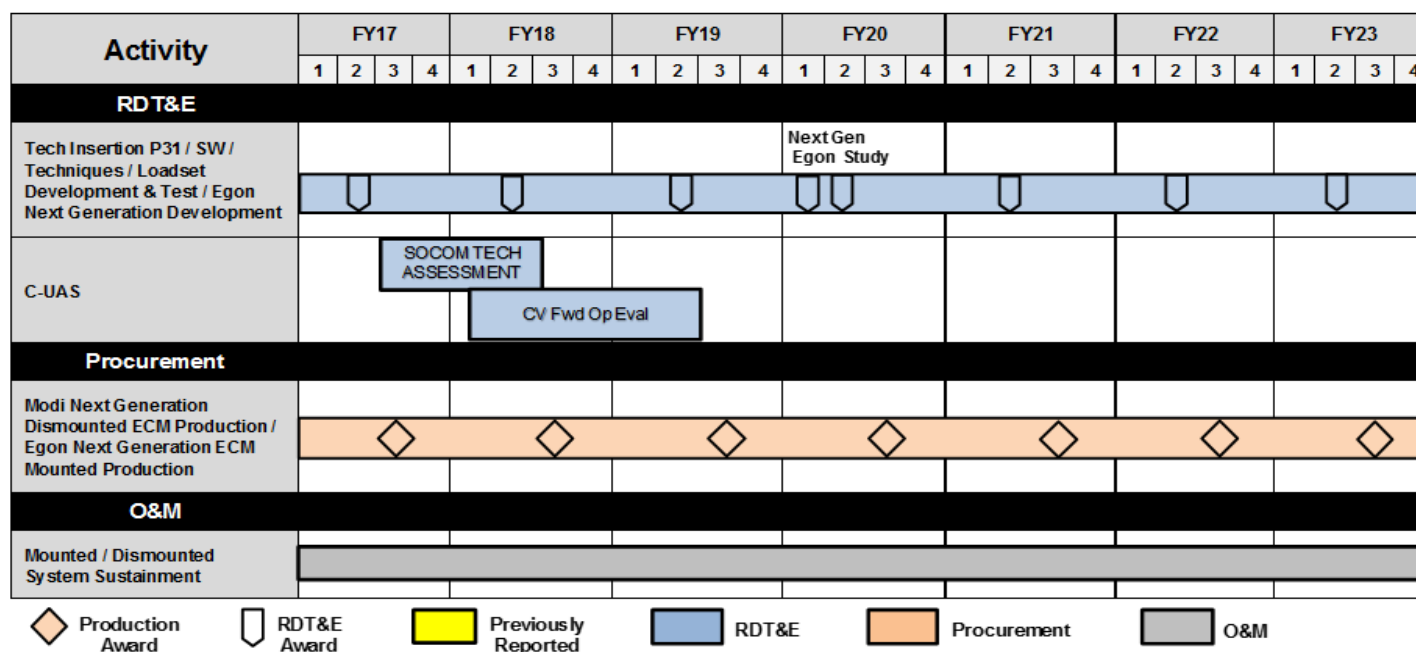
## TCCC Schedule



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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2019 United States Special Operations Command			<b>Date:</b> February 2018
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / Warrior Systems	<b>Project (Number/Name)</b> S385 / Soldier Protection and Survival Systems	

## Counter RC-IED Schedule



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Exhibit R-4, RDT&E Schedule Profile: PB 2019 United States Special Operations Command

Date: February 2018

Appropriation/Budget Activity

0400 / 7

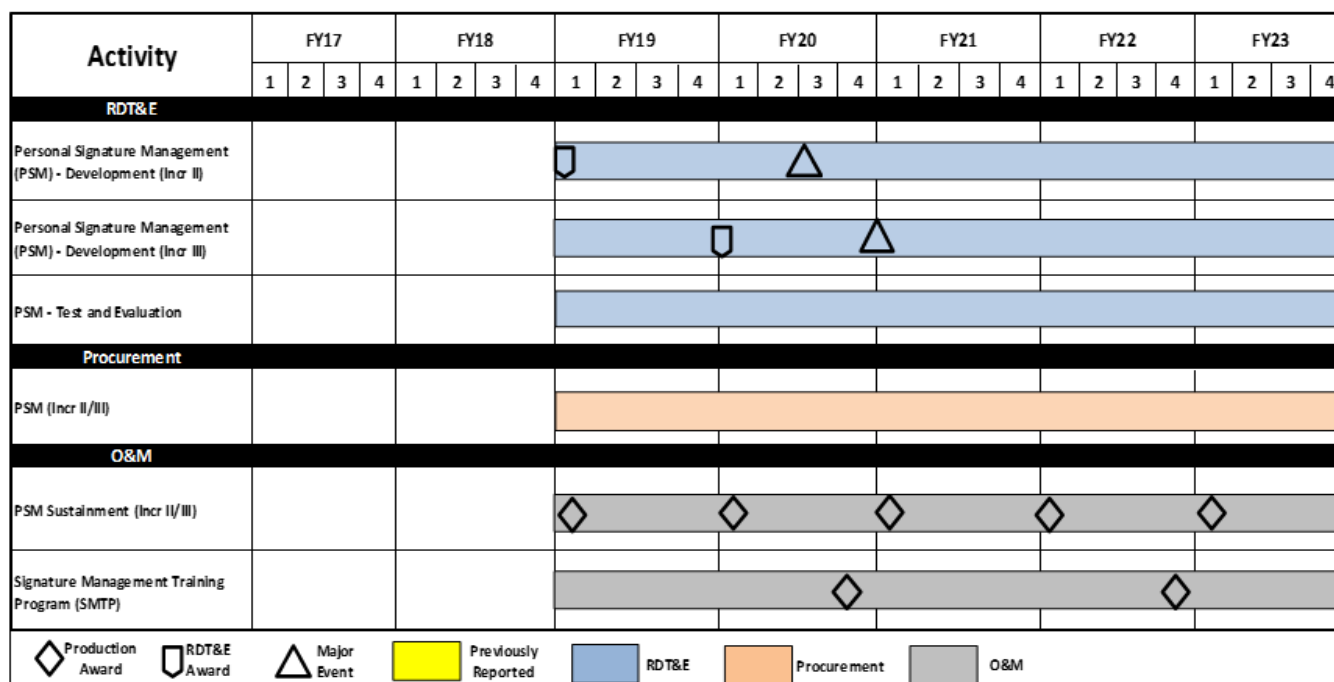
R-1 Program Element (Number/Name)

PE 1160431BB / Warrior Systems

Project (Number/Name)

S385 / Soldier Protection and Survival Systems

## Personnel Signature Management Schedule



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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2019 United States Special Operations Command			<b>Date:</b> February 2018
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S385 / <i>Soldier Protection and Survival Systems</i>	

**Schedule Details**

<b>Events by Sub Project</b>	<b>Start</b>		<b>End</b>	
	<b>Quarter</b>	<b>Year</b>	<b>Quarter</b>	<b>Year</b>
<b><i>Soldier Protection and Survival Systems</i></b>				
Protective Combat Uniform (PCU) Product Development	2	2017	4	2023
Modular Integrated Communications Helmet (MICH) Comms/Land Maritime Communication System Product Development	2	2017	4	2023
Modular Glove System (MGS) Product Development	3	2018	4	2023
Load Carriage System (LCS) and Backpacks Product Development	3	2018	4	2023
PCU Test & Evaluation	1	2017	4	2023
MGS Test & Evaluation	1	2017	4	2023
Comms Test & Evaluation	1	2017	4	2023
LCS/Backpack/Body Armor Vest Test & Evaluation	1	2017	4	2023
<b><i>Tactical Combat Casualty Care</i></b>				
TCCC CASEVAC Sets Development, Test & Evaluation	2	2017	4	2023
<b><i>Counter Radio Controlled-Improvised Explosive Device</i></b>				
National Assessment Group Test Support	1	2017	4	2023
C-UAS	3	2017	3	2019
<b><i>Personnel Signature Management (PSM)</i></b>				
PSM Development (Incr II)	1	2019	4	2023
PSM Development (Incr III)	1	2019	4	2023
PSM Test & Evaluation	1	2019	4	2023

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Exhibit R-2A, RDT&E Project Justification: PB 2019 United States Special Operations Command										Date: February 2018		
Appropriation/Budget Activity 0400 / 7					R-1 Program Element (Number/Name) PE 1160431BB / Warrior Systems				Project (Number/Name) S385A / Body Armor and Associated Equipment			
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
S385A: Body Armor and Associated Equipment	4.945	1.385	1.289	1.048	-	1.048	1.760	1.746	1.701	1.735	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

This project provides specialized equipment to meet the unique operator protection and survival requirements of SOF, to include: Army Rangers; Army Special Forces; Navy Sea, Air, Land (SEAL) teams; Navy Special Boat Units; Air Force Operators; and Marine Raiders. Specialized ballistic equipment improves survivability impacting the mobility of SOF while conducting varied missions. These missions are generally conducted in harsh environments, for unspecified periods and in locations requiring small unit autonomy.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019 Base</b>	<b>FY 2019 OCO</b>	<b>FY 2019 Total</b>
<b>Title:</b> SOF Personal Equipment Advanced Requirement (SPEAR)-Ballistic Protection	1.385	1.289	1.048	-	1.048
<b>Description:</b> This project enhances the SPEAR program by supporting body armor plates, soft armor, helmets, and eye protection. It also provides for the research, development, and testing of a variety of body armor and personal protective equipment.					
<b>FY 2018 Plans:</b> Continue foreign ammunition testing and threat validation to assess effectiveness of currently fielded personal protective equipment. Continue development and testing of lightweight body armor and helmets to upgrade systems that have been fielded. Continue evaluation of transparent armor products which include variable light transmission and laser lenses to upgrade systems that have been fielded. Initiate development and testing of technologies to upgrade the maritime crewman helmet.					
<b>FY 2019 Base Plans:</b> Continues foreign ammunition testing and threat validation to assess effectiveness of currently fielded personal protective equipment. Continues development and testing of lightweight body armor and helmets to upgrade systems that have been fielded. Continues evaluation of transparent armor products which include variable light transmission and laser lenses to upgrade systems that have been fielded. Continues development and testing of technologies to upgrade the maritime crewman helmet.					
<b>FY 2018 to FY 2019 Increase/Decrease Statement:</b>					

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2019 United States Special Operations Command								<b>Date:</b> February 2018				
<b>Appropriation/Budget Activity</b> 0400 / 7				<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>				<b>Project (Number/Name)</b> S385A / <i>Body Armor and Associated Equipment</i>				
<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>								<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019 Base</b>	<b>FY 2019 OCO</b>	<b>FY 2019 Total</b>
The FY 2019 funding request was reduced by -\$0.230 million to account for the availability of prior year execution balances and -\$0.011 million reprogrammed to higher command priorities.												
<b>Accomplishments/Planned Programs Subtotals</b>								1.385	1.289	1.048	-	1.048
<b>C. Other Program Funding Summary (\$ in Millions)</b>												
<u>Line Item</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019 Base</u>	<u>FY 2019 OCO</u>	<u>FY 2019 Total</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>Cost To Complete</u>	<u>Total Cost</u>	
• PROC/0204WARRIOR: <i>Warrior Systems&lt;\$5M</i>	266.704	272.285	438.590	21.135	459.725	293.645	304.301	282.452	295.368	Continuing	Continuing	
<b>Remarks</b>												
<b>D. Acquisition Strategy</b>												
SPEAR ballistic protection equipment takes advantage of modified commercial-off-the-shelf or non-developmental items. As USSOCOM required tailored solutions for SOF Mission sets, SPEAR items leveraged from industry are often on cutting edge of technology with modifications specific for SOF missions and require substantial testing in SOF environments. Utilizes SOFSA for warehousing and sustainment, PM-SOF SSES has cradle to grave responsibility. Contracts in support of SPEAR are a combination of firm fixed price five year indefinite delivery indefinite quantity with single vendor awards, Source America mandatory sole sources, small business set asides and prime vendor style multiple award contracts.												
<b>E. Performance Metrics</b>												
N/A												

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 United States Special Operations Command												Date: February 2018			
Appropriation/Budget Activity 0400 / 7						R-1 Program Element (Number/Name) PE 1160431BB / Warrior Systems				Project (Number/Name) S385A / Body Armor and Associated Equipment					
Product Development (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
SOF Personal Equipment Advanced Requirement (SPEAR) - Body Armor	Various	PM-SSES : Natick, MA	1.645	0.380	Feb 2017	0.500	Jan 2018	0.359	Feb 2019	-		0.359	Continuing	Continuing	-
SPEAR - Lightweight Ballistic Helmets	Various	PM-SSES : Natick, MA	1.097	0.400	Jan 2017	0.226	Jan 2018	0.126	Jan 2019	-		0.126	Continuing	Continuing	-
SPEAR - Eye Protection	Various	PM-SSES : Natick, MA	0.176	0.010	Jul 2017	0.050	Mar 2018	0.050	Apr 2019	-		0.050	Continuing	Continuing	-
Subtotal			2.918	0.790		0.776		0.535		-		0.535	Continuing	Continuing	N/A
Test and Evaluation (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
SPEAR - Body Armor	Various	PM-SSES : Natick, MA	1.124	0.290	Feb 2017	0.322	Feb 2018	0.322	Feb 2019	-		0.322	Continuing	Continuing	-
SPEAR - Lightweight Ballistic Helmet	Various	PM-SSES : Natick, MA	0.781	0.300	Jan 2017	0.153	Feb 2018	0.153	Jan 2019	-		0.153	Continuing	Continuing	-
SPEAR - Transparent Armor	Various	PM-SSES : Natick, MA	0.122	0.005	Jun 2017	0.038	Mar 2018	0.038	Apr 2019	-		0.038	Continuing	Continuing	-
Subtotal			2.027	0.595		0.513		0.513		-		0.513	Continuing	Continuing	N/A
			Prior Years	FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			4.945	1.385		1.289		1.048		-		1.048	Continuing	Continuing	N/A
Remarks															



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**Exhibit R-4, RDT&E Schedule Profile:** PB 2019 United States Special Operations Command

**Date:** February 2018

**Appropriation/Budget Activity**  
0400 / 7

**R-1 Program Element (Number/Name)**  
PE 1160431BB / *Warrior Systems*

**Project (Number/Name)**  
S385A / *Body Armor and Associated Equipment*

## SPEAR – Body Armor Schedule



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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2019 United States Special Operations Command			<b>Date:</b> February 2018
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S385A / <i>Body Armor and Associated Equipment</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Body Armor and Associated Equipment</i></b>				
Body Armor Product Development	2	2017	4	2023
Lightweight Ballistic Helmets Product Development	2	2017	4	2023
Eye Protection Product Development	3	2017	4	2023
Body Armor Test & Evaluation	2	2017	4	2023
Lightweight Ballistic Helmets Test & Evaluation	2	2017	4	2023
Transparent Armor Test & Evaluation	2	2017	4	2023

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Exhibit R-2A, RDT&E Project Justification: PB 2019 United States Special Operations Command										Date: February 2018			
Appropriation/Budget Activity 0400 / 7					R-1 Program Element (Number/Name) PE 1160431BB / Warrior Systems				Project (Number/Name) S395 / Visual Augmentation, Lasers and Sensor Systems				
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost	
S395: Visual Augmentation, Lasers and Sensor Systems	4.010	7.373	1.517	1.257	-	1.257	1.727	1.698	1.620	1.652	Continuing	Continuing	
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-			
A. Mission Description and Budget Item Justification													
This project provides for development, testing and integration of specialized visual augmentation, binocular and monocular night vision devices, laser markers, laser designators, geo-location systems, weapon optics, weapon aiming lasers, sensor systems, visible lights, infrared imagers, clandestine pointers, and accessories to meet the unique requirements of SOF. These projects ensure SOF systems will remain technologically superior to enemy threats and ensure mission success.													
B. Accomplishments/Planned Programs (\$ in Millions)								FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	
Title: Visual Augmentation Systems								4.493	1.517	1.257	-	1.257	
Description: Sensor technologies being developed include image intensification thermal imaging, short wave infrared, multi-spectral, fusion, and other sensor types. Developments will decrease weight, increase range, increase situational awareness, provide data, image processing, image filtering, determine wind speed, observe bullet trace, and sensor fusion to be able to detect, identify, classify and engage targets at greater ranges.													
FY 2018 Plans: Continue development and testing of visual augmentation and laser devices to improve situational awareness, sharing of data/images and target acquisition.													
FY 2019 Base Plans: Continues development and testing of visual augmentation and laser devices to improve situational awareness, sharing of data/images and target acquisition.													
FY 2018 to FY 2019 Increase/Decrease Statement: The FY 2019 funding request was reduced by -\$0.260M to account for the availability of prior year execution balances and minor adjustments.													
Accomplishments/Planned Programs Subtotals								4.493	1.517	1.257	-	1.257	
								FY 2017	FY 2018				
Congressional Add: Visual Augmentation Systems (VAS)								2.880	-				

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2019 United States Special Operations Command			<b>Date:</b> February 2018
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S395 / <i>Visual Augmentation, Lasers and Sensor Systems</i>	

	<b>FY 2017</b>	<b>FY 2018</b>
<b><i>FY 2017 Accomplishments:</i></b> Completed developmental test, evaluation, and integration of Augmented reality Technology and Countermeasure Studies of various Visual Augmentation System devices.		
<b>Congressional Adds Subtotals</b>	2.880	-

**C. Other Program Funding Summary (\$ in Millions)**

<u>Line Item</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u> <u>Base</u>	<u>FY 2019</u> <u>OCO</u>	<u>FY 2019</u> <u>Total</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• PROC/0204WARRIOR: <i>Warrior Systems&lt;\$5M</i>	266.704	272.285	438.590	21.135	459.725	293.645	304.301	282.452	295.368	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**

Evolutionary acquisition, leveraging emerging technology. An evolutionary approach delivers capability in increments, recognizing, up front, the need for future capability improvements. Full and open competition; Contracts are a combination of five-year Firm Fixed Price Indefinite Delivery Indefinite Quantity, small business set asides at several locations; primarily via Naval Surface Warfare Center, Crane Contracting office, USSOCOM Contracting Office and other contracting offices.

**E. Performance Metrics**

N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 United States Special Operations Command												Date: February 2018			
Appropriation/Budget Activity 0400 / 7						R-1 Program Element (Number/Name) PE 1160431BB / Warrior Systems				Project (Number/Name) S395 / Visual Augmentation, Lasers and Sensor Systems					
Product Development (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Visual Augmentation Systems (VAS) Product Development	C/CPFF	USSOCOM : Tampa, FL	4.010	4.506	Jan 2017	1.517	Nov 2018	1.257	Jan 2019	-		1.257	Continuing	Continuing	-
VAS Product Development (OCO)	C/CPFF	USSOCOM : Tampa, FL	-	2.667	Jan 2017	-		-		-		-	Continuing	Continuing	-
Subtotal			4.010	7.173		1.517		1.257		-		1.257	Continuing	Continuing	N/A
Test and Evaluation (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
VAS/CUAS Test and Evaluation	C/CPFF	USSOCOM : Tampa, FL	-	0.200	Jan 2017	-		-		-		-	Continuing	Continuing	-
Subtotal			-	0.200		-		-		-		-	Continuing	Continuing	N/A
			Prior Years	FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			4.010	7.373		1.517		1.257		-		1.257	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&amp;E Schedule Profile: PB 2019 United States Special Operations Command

Date: February 2018

Appropriation/Budget Activity

0400 / 7

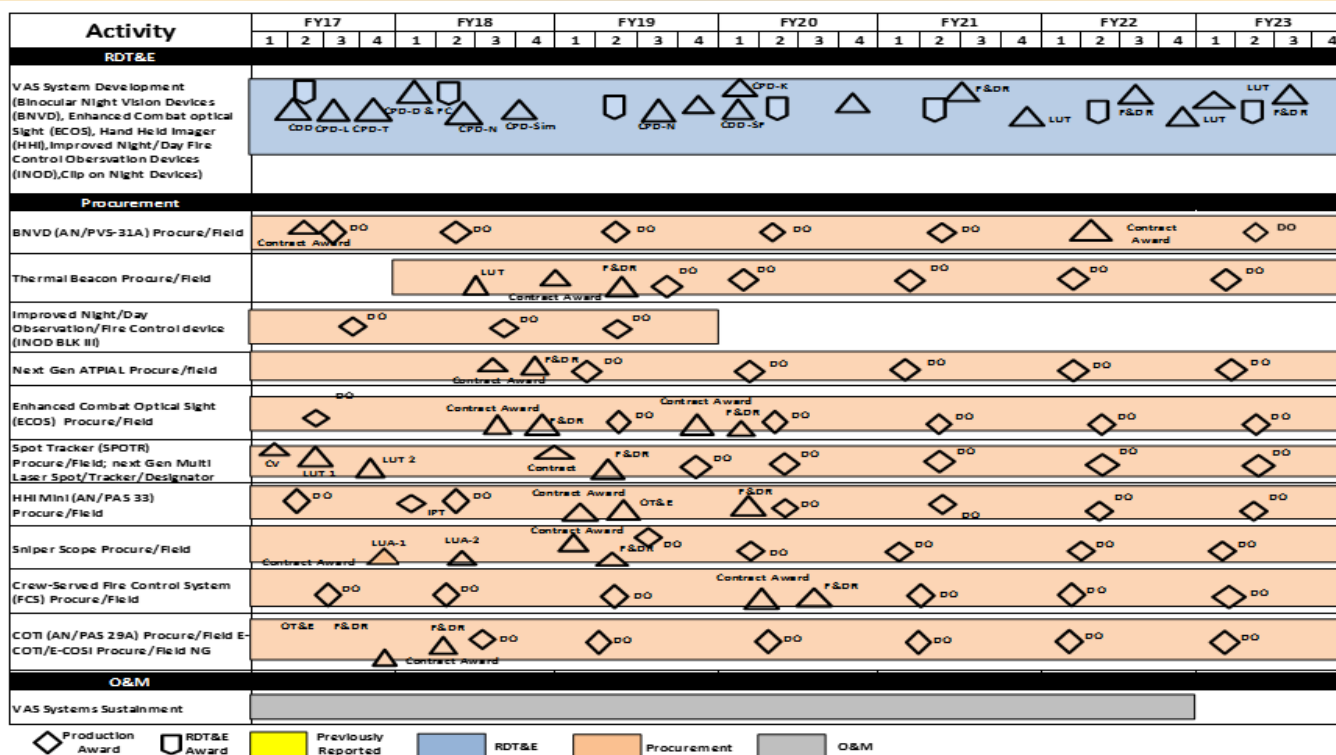
R-1 Program Element (Number/Name)

PE 1160431BB / Warrior Systems

Project (Number/Name)

S395 / Visual Augmentation, Lasers and Sensor Systems

## Visual Augmentation Systems Schedule



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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2019 United States Special Operations Command			<b>Date:</b> February 2018
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S395 / <i>Visual Augmentation, Lasers and Sensor Systems</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Visual Augmentation, Lasers and Sensor Systems</i>				
VAS System Development	2	2017	4	2023

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Exhibit R-2A, RDT&E Project Justification: PB 2019 United States Special Operations Command										Date: February 2018		
Appropriation/Budget Activity 0400 / 7					R-1 Program Element (Number/Name) PE 1160431BB / Warrior Systems				Project (Number/Name) S700 / Communications Equipment and Electronics Systems			
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
S700: Communications Equipment and Electronics Systems	12.606	9.037	12.864	13.966	-	13.966	16.605	16.773	11.729	11.965	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

This project provides for communication systems to meet emergent requirements to support Special Operations Forces (SOF). Communications Equipment and Electronics Systems is a continuing effort to develop smaller, lighter, more efficient and more robust SOF Command, Control, Communications, and Computer (C4) capabilities.

USSOCOM's C4 systems comprise an integrated network of systems providing positive command and control and the timely exchange of information to all organizational echelons. The C4 systems that support this new architecture employ the latest standards and technology by transitioning from separate systems to full integration within the Global Information Grid (GIG). The GIG is a multitude of existing and projected national assets that allows SOF elements to operate with any force combination in multiple environments.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019 Base</b>	<b>FY 2019 OCO</b>	<b>FY 2019 Total</b>
<b>Title:</b> Satellite Deployable Node (SDN)	2.846	7.982	9.527	-	9.527
<b>Description:</b> SDN is a family of deployable, super high frequency, multi-band, Satellite Communications (SATCOM) systems providing the transport path for high-capacity, voice, data, video tele-conferencing (VTC), and full motion video at all levels of classification. It consists of SDN subprograms, transport for intelligence variants, technology insertions and capital equipment replacement.					
<b>FY 2018 Plans:</b> Assess, test and evaluate wide-band Communications-on-the-Move (COTM) maritime, assessment of reduction of size, weight and power (SWAP), ground mobile, and airborne technologies. Continue Evolutionary Technology Insertion (ETI) integration. Evaluate new SATCOM constellations.					
<b>FY 2019 Base Plans:</b> Continues assessments, tests and evaluations for wide-band COTM maritime, continues assessments of reduction of size, weight and power (SWAP), ground mobile, and airborne technologies. Continues ETI integration. Continues evaluation of new SATCOM constellations. Evaluates resiliency of systems in a					



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Exhibit R-2A, RDT&E Project Justification: PB 2019 United States Special Operations Command			Date: February 2018			
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160431BB / Warrior Systems	Project (Number/Name) S700 / Communications Equipment and Electronics Systems				
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
degraded communication environment. Evaluates and tests SDN wireless and gray network capabilities. Evaluate and testing of mobile technologies.  <b>FY 2018 to FY 2019 Increase/Decrease Statement:</b> Increase of \$1.627 million supports testing and evaluation of the latest high throughput satellite terminals in support of the future SATCOM Constellations effort to evaluate resiliency of systems in a degraded communication environment, evaluate and test SDN wireless network capabilities, and evaluate and test of mobile technologies.						
<b>Title:</b> Civil Information Management (CIM)  <b>Description:</b> The CIMDPS is an automation system that assists active Civil Affairs (CA) and others engaged in civil-military operations to collect, process, analyze, maintain, mine, and deliver Civil Information and analysis products in support of military operations.  <b>FY 2018 Plans:</b> Continue development and integration of Link Analysis and Mobility, and Next Generation CIMDPS Hardware platform in support of CA communities.  <b>FY 2019 Base Plans:</b> Continues development and integration of Link Analysis and Mobility, and Next Generation CIMDPS Hardware platform in support of CA communities.  <b>FY 2018 to FY 2019 Increase/Decrease Statement:</b> The FY 2019 funding was reduced by -\$0.022 million to account for the availability of prior year execution balances and minor adjustments.		1.788	0.207	0.185	-	0.185
<b>Title:</b> Special Communications (SPCOM) Enterprise program  <b>Description:</b> SPCOM includes organizations, practices, processes, services, networks, systems and subsystems that manage and provide clandestine exchange of information between elements (field-to-field, field-to-base, base-to-field) for worldwide deployed SOF units, often in austere environments with heavy adversarial monitoring.  <b>FY 2018 Plans:</b>		4.403	4.675	4.254	-	4.254

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Exhibit R-2A, RDT&E Project Justification: PB 2019 United States Special Operations Command										Date: February 2018		
Appropriation/Budget Activity 0400 / 7				R-1 Program Element (Number/Name) PE 1160431BB / Warrior Systems				Project (Number/Name) S700 / Communications Equipment and Electronics Systems				
B. Accomplishments/Planned Programs (\$ in Millions)							FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	
Continue segment development for the SPCOM enterprise; develops means and methods to provide near-term impact to operators. Continue development of anti-intrusion/anti-tamper capabilities. Conduct extensive vulnerability assessments plus independent verification and validation.  <b>FY 2019 Base Plans:</b> Continues segment development for the SPCOM enterprise; develops means and methods to provide near-term impact to operators. Continues development of anti-intrusion/anti-tamper capabilities. Continues extensive vulnerability assessments plus independent verification and validation.  <b>FY 2018 to FY 2019 Increase/Decrease Statement:</b> The FY 2019 funding was reduced by -\$0.421 million to account for the availability of prior year execution balances and minor adjustments.												
Accomplishments/Planned Programs Subtotals							9.037	12.864	13.966	-	13.966	
C. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost	
• PROC/0204WARRIOR: Warrior Systems<\$5M	266.704	272.285	438.590	21.135	459.725	293.465	304.301	282.452	295.368	Continuing	Continuing	
• PROC/0204OTHER: OTHER ITEMS <\$5M	77.231	54.592	112.117	7.700	119.817	94.206	95.898	89.320	85.302	Continuing	Continuing	
Remarks												
D. Acquisition Strategy												
• SDN is a fielded program with ETIs into all variants: heavy, medium, and light, wide-band COTM, Mobile SOF Strategic Entry Point, and Airborne Intelligence Surveillance Reconnaissance transport variants. Commercial and government agency sources will be leveraged for required certifications, functional and operational tests, and acceptance support.												
• CIM has an evolutionary acquisition strategy to enhance its capability to meet the CA communities emerging requirements.												
• SPCOM is an ETI effort to provide and support multiple field mission sets. Commercial and government agency sources will be leveraged for required certifications, functional and operational tests, and acceptance support.												

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Exhibit R-2A, RDT&E Project Justification: PB 2019 United States Special Operations Command		Date: February 2018
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160431BB / Warrior Systems	Project (Number/Name) S700 / Communications Equipment and Electronics Systems
E. Performance Metrics N/A		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 United States Special Operations Command												Date: February 2018			
Appropriation/Budget Activity 0400 / 7						R-1 Program Element (Number/Name) PE 1160431BB / Warrior Systems				Project (Number/Name) S700 / Communications Equipment and Electronics Systems					
Product Development (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Satellite Deployable Node (SDN) Development Assessment	MIPR	Various : Various	3.405	1.447	Mar 2017	2.110	Dec 2017	4.806	Dec 2018	-		4.806	Continuing	Continuing	-
Civil Information Management Data Processing System (CIMDPS) Development	PO	TBD : SOF AT&L - KS, MACDILL AFB	-	1.788	Mar 2017	0.207	Mar 2018	0.185	Mar 2019	-		0.185	0.000	2.180	-
Special Communications (SPCOM) Enterprise Capability Development	TBD	Various : Various	4.817	3.656	Mar 2017	3.845	Feb 2018	3.329	Mar 2019	-		3.329	Continuing	Continuing	-
SPCOM Technology Vulnerability Assessments	MIPR	MITRE : Bedford, MA	1.170	0.510	Dec 2016	0.530	Dec 2017	0.669	Dec 2018	-		0.669	Continuing	Continuing	-
Subtotal			9.392	7.401		6.692		8.989		-		8.989	Continuing	Continuing	N/A
Test and Evaluation (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
SDN Market Research Evaluation and Testing	MIPR	Various : Various	2.366	1.399	Mar 2017	5.872	Jan 2018	4.721	Feb 2019	-		4.721	Continuing	Continuing	-
SPCOM Independent Verification and Validation	MIPR	MITRE : Bedford, MA	0.848	0.237	Mar 2017	0.300	Dec 2017	0.256	Dec 2018	-		0.256	Continuing	Continuing	-
Subtotal			3.214	1.636		6.172		4.977		-		4.977	Continuing	Continuing	N/A
			Prior Years	FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			12.606	9.037		12.864		13.966		-		13.966	Continuing	Continuing	N/A
Remarks															

# UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2019 United States Special Operations Command

Date: February 2018

Appropriation/Budget Activity

0400 / 7

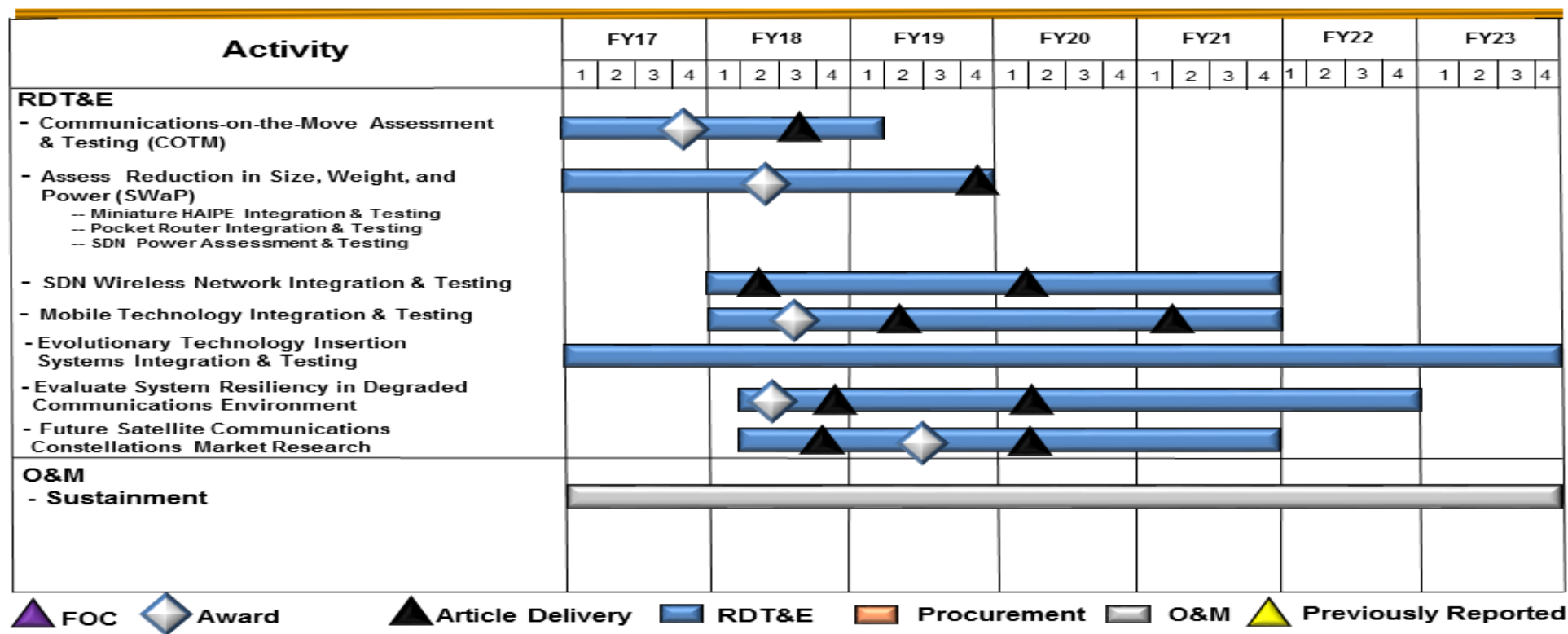
R-1 Program Element (Number/Name)

PE 1160431BB / Warrior Systems

Project (Number/Name)

S700 / Communications Equipment and Electronics Systems

## SDN Schedule



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Exhibit R-4, RDT&E Schedule Profile: PB 2019 United States Special Operations Command

Date: February 2018

Appropriation/Budget Activity

0400 / 7

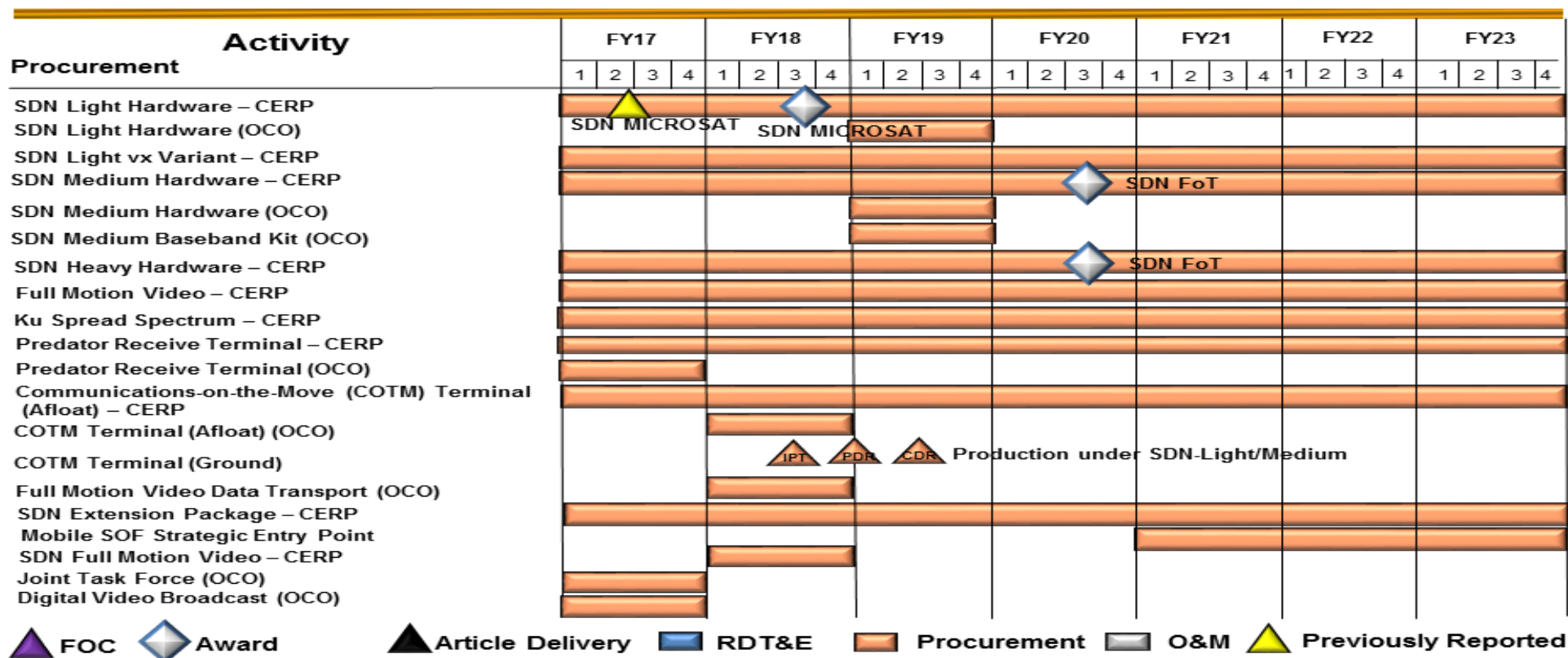
R-1 Program Element (Number/Name)

PE 1160431BB / Warrior Systems

Project (Number/Name)

S700 / Communications Equipment and Electronics Systems

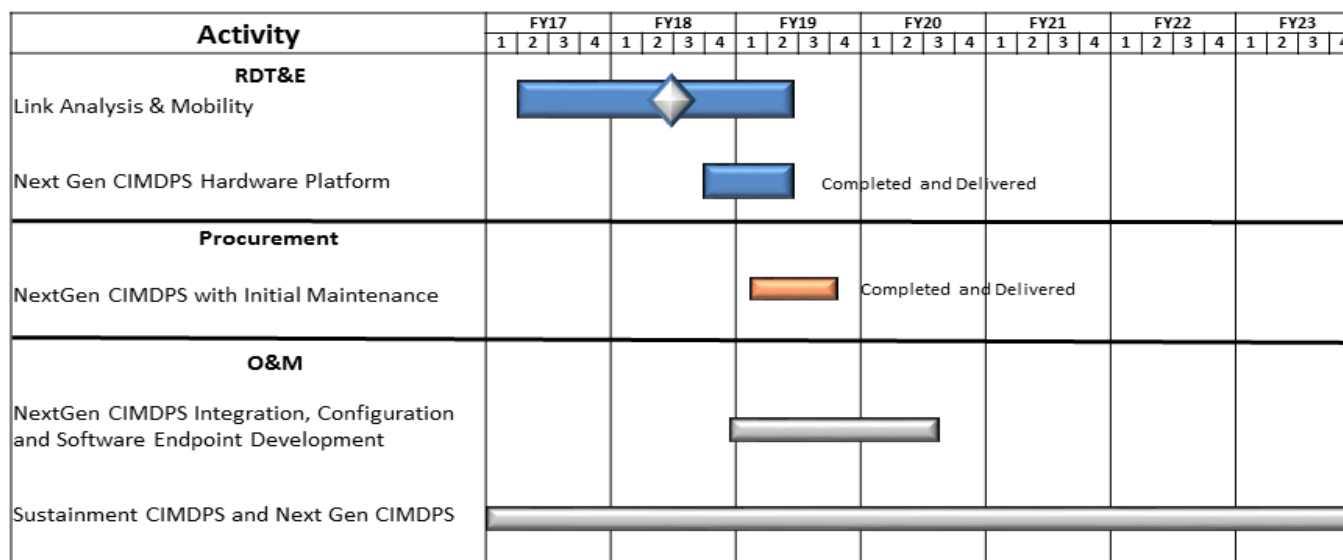
## SDN Schedule (con't)



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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2019 United States Special Operations Command			<b>Date:</b> February 2018
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> <i>S700 / Communications Equipment and Electronics Systems</i>	

## Civil Information Management Data Processing System Schedule



**UNCLASSIFIED**

**Exhibit R-4, RDT&E Schedule Profile:** PB 2019 United States Special Operations Command

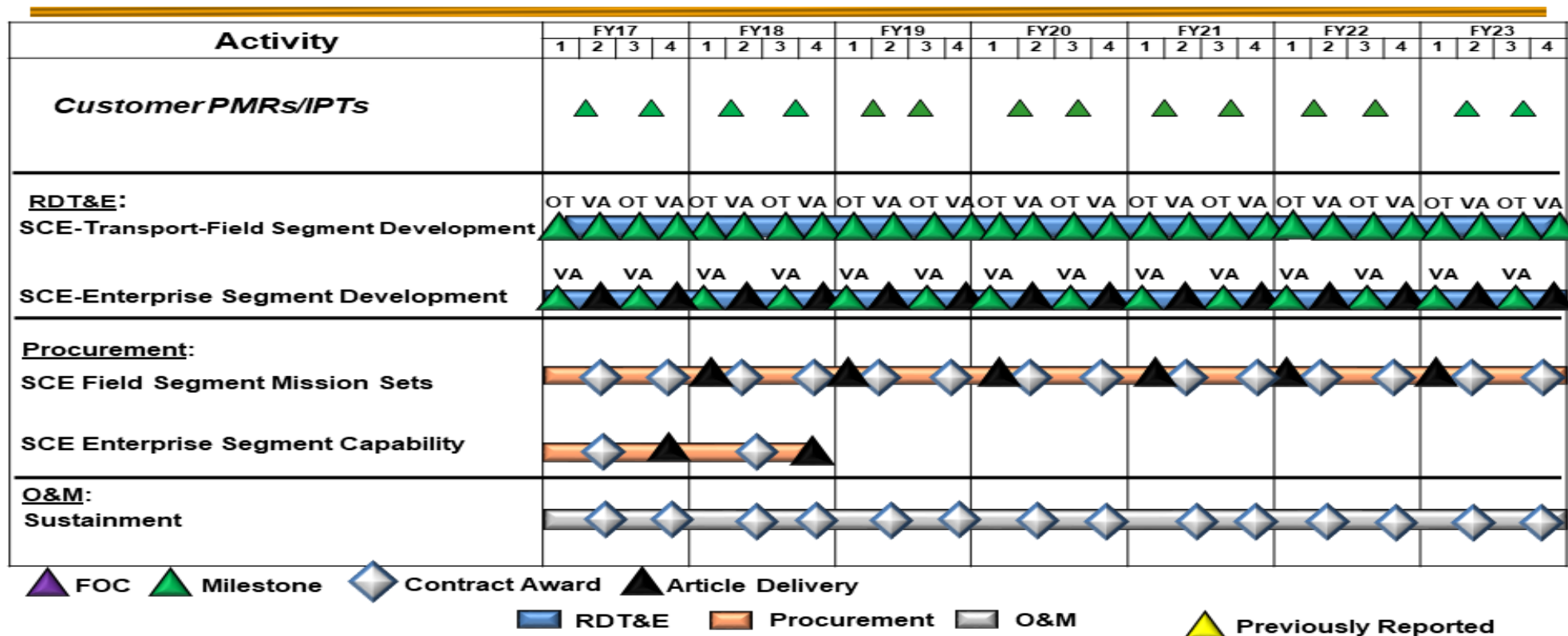
**Date:** February 2018

**Appropriation/Budget Activity**  
0400 / 7

**R-1 Program Element (Number/Name)**  
PE 1160431BB / Warrior Systems

**Project (Number/Name)**  
S700 / Communications Equipment and Electronics Systems

# Special Communications Enterprise Schedule





**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2019 United States Special Operations Command			<b>Date:</b> February 2018
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> <i>S700 / Communications Equipment and Electronics Systems</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>SOF Deployable Node (SDN)</i></b>				
Communications-on-the-Move (COTM) Assessment & Testing	1	2017	1	2019
Evolutionary Technology Insertion (ETI) Systems Integration & Testing	1	2017	4	2023
Evaluate System Resiliency in Degraded Communications Environment	2	2018	4	2022
Future Satellite Communications Constellations Market Research	2	2018	4	2021
<b><i>CIVIL INFORMATION MANAGEMENT (CIM)</i></b>				
Link Analysis & Mobility	2	2017	2	2019
Next Generation Civil Information Management Data Processing System (CIMDPS) Hardware Platform	2	2018	2	2019
<b><i>Special Communications (SPCOM) Enterprise Program</i></b>				
Field Segment Kit Development	1	2016	4	2023
Enterprise Segment Services Development	1	2016	4	2023

**UNCLASSIFIED**

Exhibit R-2A, RDT&E Project Justification: PB 2019 United States Special Operations Command										Date: February 2018		
Appropriation/Budget Activity 0400 / 7					R-1 Program Element (Number/Name) PE 1160431BB / Warrior Systems				Project (Number/Name) S710 / Tactical Systems Development			
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
S710: Tactical Systems Development	1.812	1.083	2.416	4.240	-	4.240	3.328	3.359	3.117	3.180	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

This project provides for development, testing, and integration of specialized automation equipment to meet the unique requirements of Special Operations Forces (SOF). Specialized automation equipment will permit small, highly trained forces to conduct required operations across the entire spectrum of conflict. These operations are generally conducted in harsh environments, for unspecified periods and in locations requiring small unit autonomy. SOF must infiltrate by land, sea, and air to conduct unconventional warfare, direct action, or deep reconnaissance operations in denied areas against insurgent units, terrorists, or highly sophisticated threat forces. The requirement to operate in denied areas controlled by a sophisticated threat mandates that SOF systems remain technologically superior to threat forces to ensure mission success.

**B. Accomplishments/Planned Programs (\$ in Millions)**

	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019 Base</b>	<b>FY 2019 OCO</b>	<b>FY 2019 Total</b>
<b>Title:</b> Tactical Local Area Network (TACLAN) Suites	1.083	2.416	4.240	-	4.240
<b>Description:</b> TACLAN provides SOF operational commanders and forward deployed forces advanced networking, automated data processing, storage, and display capabilities to support situational awareness, mission planning and execution, and command and control of forces. The TACLAN consists of Suites, Mission Planning Kits, Field Computing Devices, Coalition Local Area Network, and Full Motion Video Kits.					
<b>FY 2018 Plans:</b> Continue integration and testing of Evolutionary Technology Insertion (ETI) for Secure Data At Rest, secure wireless and cross domain solutions. Continue assessment, test and evaluation of the design and development of distributed cloud architecture to reduce complexity, improve resiliency, empower mobility, and increase security of the SIE.					
<b>FY 2019 Base Plans:</b> Continues integration and testing of Evolutionary Technology Insertion (ETI) for Secure Data At Rest, secure wireless and cross domain solutions. Continue assessment, test and evaluation of the design and development of distributed cloud architecture to reduce complexity, improve resiliency, empower mobility, and increase security of the SIE. Beginning integration of tactical End User Devices (EUD) and micro-server processors into mobile cloud architecture and establish multiple points of entry into the SOF Information Environment through all forms of wireless tactical transport. Beginning development of cross domain solutions on TACLAN Modular systems and integrate Software Defined Networking to the architecture to further reduce material footprint.					

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2019 United States Special Operations Command								<b>Date:</b> February 2018				
<b>Appropriation/Budget Activity</b> 0400 / 7				<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / Warrior Systems				<b>Project (Number/Name)</b> S710 / Tactical Systems Development				
<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>								<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019 Base</b>	<b>FY 2019 OCO</b>	<b>FY 2019 Total</b>
Begins development of Tactical Personal Area Networks (TPAN) and Wireless Personal Area Networks (WPAN).												
<b><i>FY 2018 to FY 2019 Increase/Decrease Statement:</i></b> Net Increase of \$1.861M provides integration and testing of wearable technologies and increase interoperability in tactical C4 platform environments. Empower user mobility through the development of TPAN and WPAN.												
<b>Accomplishments/Planned Programs Subtotals</b>								1.083	2.416	4.240	-	4.240
<b>C. Other Program Funding Summary (\$ in Millions)</b>												
<u>Line Item</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019 Base</u>	<u>FY 2019 OCO</u>	<u>FY 2019 Total</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>Cost To Complete</u>	<u>Total Cost</u>	
• PROC/0204OTHER: OTHER ITEMS <\$5M	77.231	54.592	112.117	7.700	119.817	94.206	95.898	89.320	85.302	Continuing	Continuing	
<b>Remarks</b>												
<b>D. Acquisition Strategy</b>												
The TACLAN evolutionary acquisition strategy includes the use of commercial and government agency sources, that will be leveraged for required certifications, functional and operational test, and acceptance support.												
<b>E. Performance Metrics</b>												
N/A												

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**Exhibit R-3, RDT&E Project Cost Analysis:** PB 2019 United States Special Operations Command **Date:** February 2018

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S710 / <i>Tactical Systems Development</i>
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Test and Evaluation (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Secure Data/Wireless	Reqn	iGov : Tampa, FL	1.812	0.379	May 2017	0.850	Jan 2018	1.500	Jan 2019	-		1.500	Continuing	Continuing	-
Virtualized Network Management	MIPR	CERDEC : Aberdeen, MD	-	0.368	Mar 2017	0.815	Mar 2019	1.419	Mar 2019	-		1.419	Continuing	Continuing	-
Enterprise Network Infrastructure	MIPR	NAVAIR : Paxtuxant River, MD	-	0.336	Feb 2017	0.751	Feb 2019	1.321	Feb 2019	-		1.321	Continuing	Continuing	-
<b>Subtotal</b>			1.812	1.083		2.416		4.240		-		4.240	Continuing	Continuing	N/A
<b>Project Cost Totals</b>			1.812	1.083		2.416		4.240		-		4.240	Continuing	Continuing	N/A

**Remarks**

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Exhibit R-4, RDT&E Schedule Profile: PB 2019 United States Special Operations Command

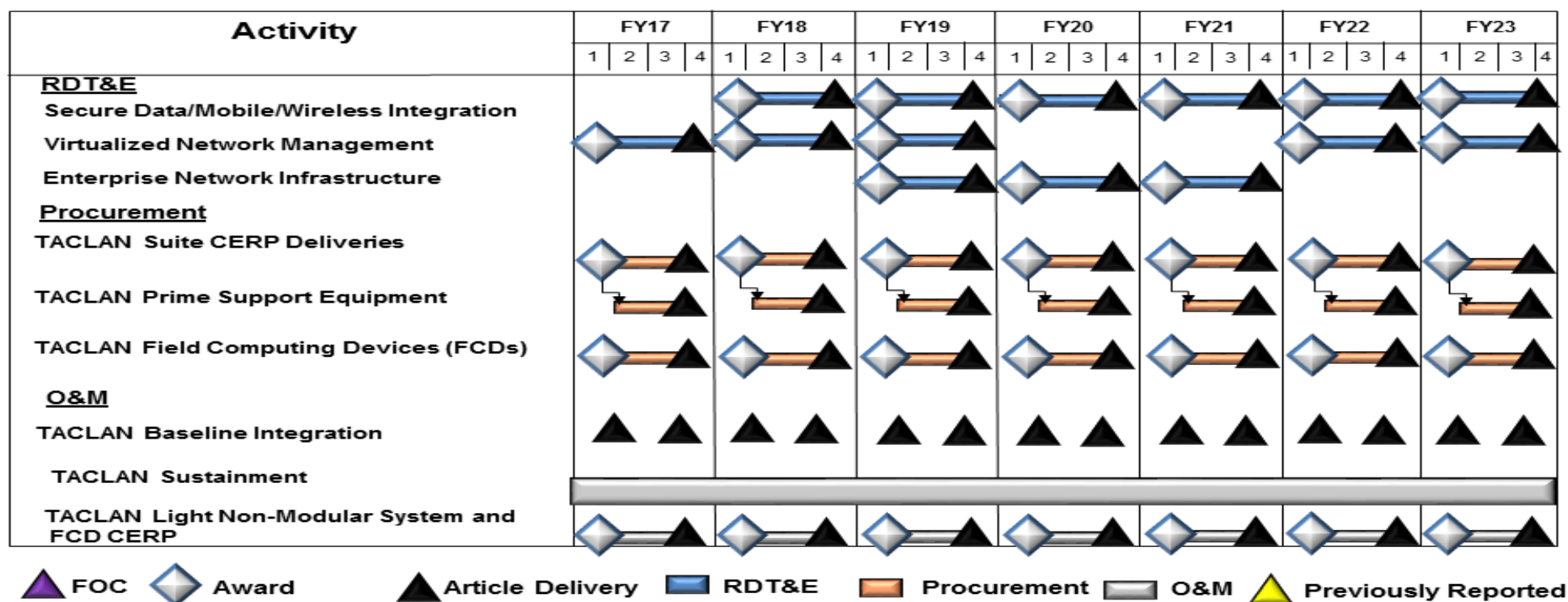
Date: February 2018

Appropriation/Budget Activity  
0400 / 7

R-1 Program Element (Number/Name)  
PE 1160431BB / Warrior Systems

Project (Number/Name)  
S710 / Tactical Systems Development

# TACLAN Schedule



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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2019 United States Special Operations Command	<b>Date:</b> February 2018
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<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S710 / <i>Tactical Systems Development</i>
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Tactical Local Area Network (TACLAN) Suites</i></b>				
Secure Data Mobile Wireless Intergration	2	2017	4	2023
Virtualized Network Management	2	2017	4	2023
Enterprise Network Infrastructure	2	2017	4	2023

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Exhibit R-2A, RDT&E Project Justification: PB 2019 United States Special Operations Command										Date: February 2018		
Appropriation/Budget Activity 0400 / 7					R-1 Program Element (Number/Name) PE 1160431BB / Warrior Systems				Project (Number/Name) S725 / Tactical Radio Systems			
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
S725: Tactical Radio Systems	9.684	3.620	13.183	4.660	-	4.660	10.691	7.286	1.871	1.909	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

## A. Mission Description and Budget Item Justification

This project is for the development of all SOF tactical radio programs. Tactical Radios provide the critical Command, Control, Communications (C3) link between SOF Commanders and SOF Teams involved in operational missions and training exercises. They also provide interoperability with all Services, various agencies of the U.S. Government, Air Traffic Control, commercial agencies, and allied foreign forces. Tactical Radios rapidly and seamlessly establish and maintain mobile and fixed Command and Control (C2) communications between infiltrated/operational elements and higher echelon headquarters, allowing SOF to operate with any force combination in multiple environments.

## B. Accomplishments/Planned Programs (\$ in Millions)

	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019 Base</b>	<b>FY 2019 OCO</b>	<b>FY 2019 Total</b>
<b>Title:</b> SOF Tactical Communications (STC)	3.551	13.112	4.589	-	4.589
<b>Description:</b> STC consists of the next-generation SOF Communication System and replaces most of the currently fielded SOF suite of tactical radios. Capabilities include real time, Hostile and Friendly Force information; Line of Sight (LOS) and Beyond LOS (BLOS) Communications; and access to Situational Awareness in the form of Intelligence inputs, broadcasts, and networks.					
<b>FY 2018 Plans:</b> Continue development, integration and testing of new capabilities in tactical radio equipment. Enable modernization and testing of Cryptography and Global Positioning System (GPS) technology in accordance with DOD modernization directives for a fleet of more than 33,000 tactical radios. Enable integration and testing of emerging High Frequency (HF) waveform, the Mobile User Objective Waveform, emerging Mobile Ad-hoc Networking (MANET) waveforms, and the Link-16 Tactical Data Link (TDL) waveform.					
<b>FY 2019 Base Plans:</b> Continues development, integration and testing of new capabilities in tactical radio equipment. Enables modernization and testing of Cryptography and GPS technology in accordance with DOD modernization directives for a fleet of more than 33,000 tactical radios. Enables integration and testing of emerging HF waveform, the Mobile User Objective Waveform, emerging MANET waveforms, and the Link-16 TDL waveform.					
<b>FY 2018 to FY 2019 Increase/Decrease Statement:</b>					

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2019 United States Special Operations Command			<b>Date:</b> February 2018
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> <i>S725 / Tactical Radio Systems</i>	

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019 Base</b>	<b>FY 2019 OCO</b>	<b>FY 2019 Total</b>
Net decrease of \$8.482 million is due to a -\$0.250 million decrease to re-phase effort into FY 2019 for prior year under-execution and a decrease of -\$8.232 million for higher command priorities.					
<b>Title:</b> Blue Force Tracking (BFT)  <b>Description:</b> BFT is a family of devices used to remotely track and monitor Blue forces. The capability enhances C2, threat warning, force protection, situational awareness, combat search and rescue, counter-fratricide, and battlefield visualization. This capability is unique to SOF because it requires the devices to be lightweight, portable, secure and a Low Probability of Intercept/Low Probability of Detection.  <b>FY 2018 Plans:</b> Continue development and test of new capabilities in BFT equipment.  <b>FY 2019 Base Plans:</b> Continues development and test of new capabilities in BFT equipment.  <b>FY 2018 to FY 2019 Increase/Decrease Statement:</b> None.	0.069	0.071	0.071	-	0.071
<b>Accomplishments/Planned Programs Subtotals</b>	3.620	13.183	4.660	-	4.660

**C. Other Program Funding Summary (\$ in Millions)**

<b>Line Item</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019 Base</b>	<b>FY 2019 OCO</b>	<b>FY 2019 Total</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• PROC/0204WARRIOR: <i>Warrior Systems&lt;\$5M</i>	266.704	272.285	438.590	21.135	459.725	293.645	304.301	282.452	295.368	Continuing	Continuing

**Remarks**

**D. Acquisition Strategy**

- STC is a Commercial-Off-The-Shelf/Non-Development Item program with evolutionary technology insertions (ETIs). Commercial and government agency sources will be leveraged for required certifications, functional and operational tests, and acceptance support.
- BFT is a fielded program with ETIs leveraging commercial and other government agency sources for required certifications, functional and operational tests, and technology updates.

**E. Performance Metrics**

N/A.



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Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 United States Special Operations Command												Date: February 2018			
Appropriation/Budget Activity 0400 / 7						R-1 Program Element (Number/Name) PE 1160431BB / Warrior Systems				Project (Number/Name) S725 / Tactical Radio Systems					
Product Development (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
SOF Tactical Communications Radio Development (STC)	MIPR	Various : Various	6.708	3.276	Jan 2017	11.276	Jan 2018	4.211	Jan 2019	-		4.211	Continuing	Continuing	-
Blue Force Tracking Development	MIPR	Various : Various	2.393	0.069	Jan 2017	0.071	Jan 2018	0.071	Jan 2019	-		0.071	Continuing	Continuing	-
Subtotal			9.101	3.345		11.347		4.282		-		4.282	Continuing	Continuing	N/A
Test and Evaluation (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
STC Testing	Option/ TBD	Various : Various	0.583	0.275	Jan 2017	1.836	Jan 2018	0.378	Jan 2019	-		0.378	Continuing	Continuing	-
Subtotal			0.583	0.275		1.836		0.378		-		0.378	Continuing	Continuing	N/A
			Prior Years	FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			9.684	3.620		13.183		4.660		-		4.660	Continuing	Continuing	N/A
Remarks															

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**Exhibit R-4, RDT&E Schedule Profile: PB 2019 United States Special Operations Command**

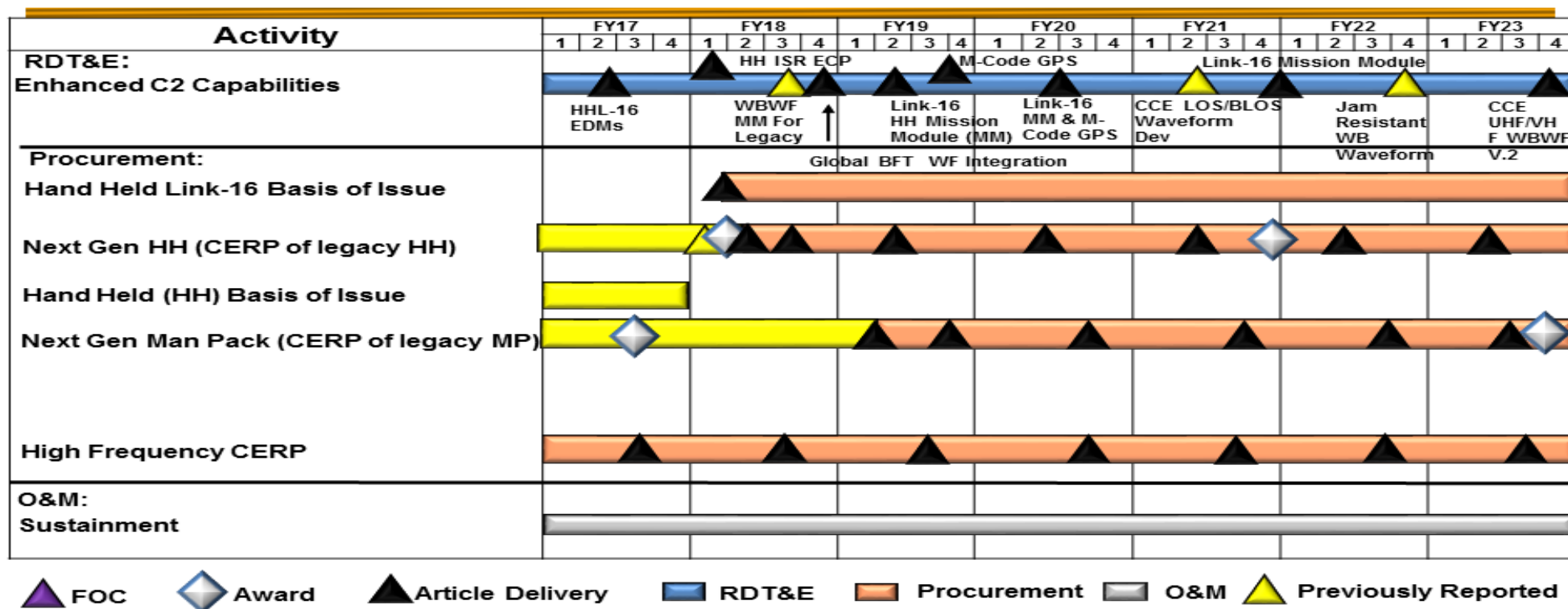
<b>Date:</b> February 2018
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Appropriation/Budget Activity	0400 / 7
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**R-1 Program Element (Number/Name)**  
PE 1160431BB / *Warrior Systems*

<b>Project (Number/Name)</b> <i>S725 / Tactical Radio Systems</i>
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## STC Schedule



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Exhibit R-4, RDT&E Schedule Profile: PB 2019 United States Special Operations Command

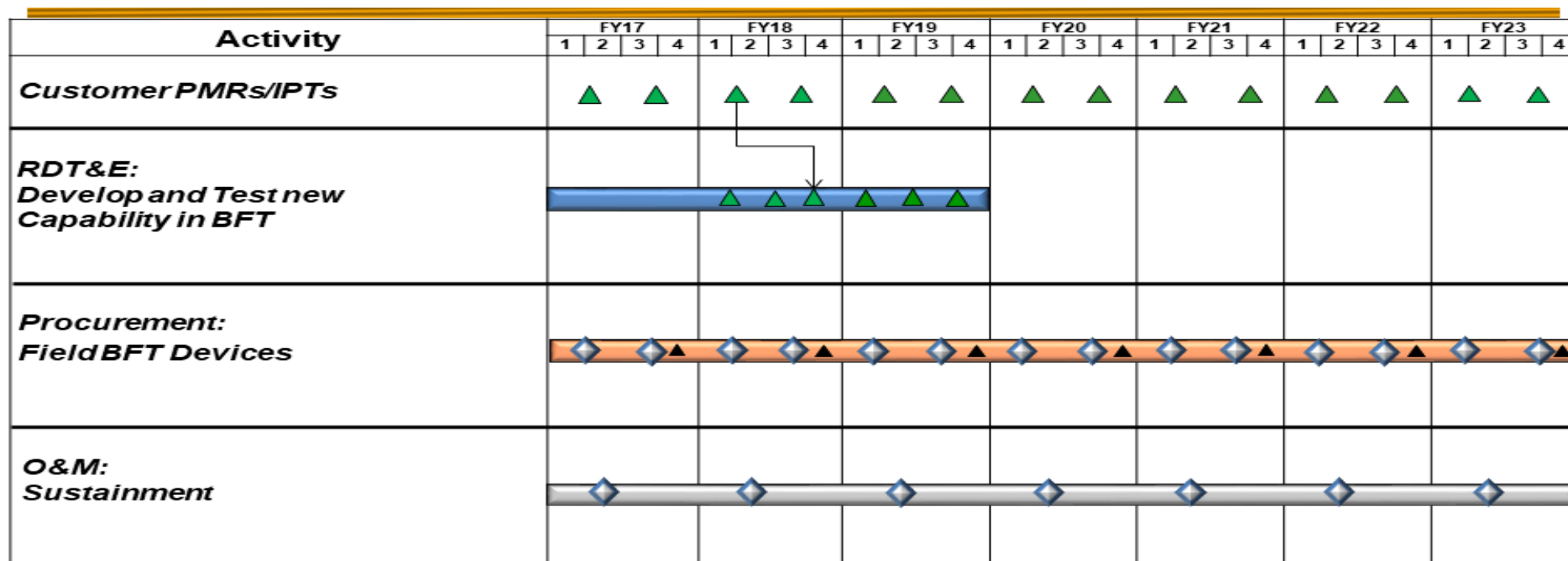
Date: February 2018

Appropriation/Budget Activity  
0400 / 7

R-1 Program Element (Number/Name)  
PE 1160431BB / Warrior Systems

Project (Number/Name)  
S725 / Tactical Radio Systems

## BFT Schedule



FOC  
 Milestone  
 Contract Award  
 Article Delivery  
 RDT&E  
 Procurement  
 O&M  
 Previously Reported

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2019 United States Special Operations Command	<b>Date:</b> February 2018
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<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> <i>S725 / Tactical Radio Systems</i>
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>SOF Tactical Communications Radio</i></b>				
Development	1	2017	4	2023
Test and Evaluation	1	2017	4	2023

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Exhibit R-2A, RDT&E Project Justification: PB 2019 United States Special Operations Command										Date: February 2018		
Appropriation/Budget Activity 0400 / 7					R-1 Program Element (Number/Name) PE 1160431BB / Warrior Systems				Project (Number/Name) S800 / Munitions Advanced Development			
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
S800: Munitions Advanced Development	15.052	29.614	5.491	8.730	8.040	16.770	20.791	4.882	4.855	12.866	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
This project funds advanced engineering, operational system development and qualification efforts related to specialized munitions and equipment to meet the unique requirements of SOF.												
B. Accomplishments/Planned Programs (\$ in Millions)								FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Title: Munitions Advanced Development								0.504	0.531	0.436	-	0.436
Description: The Munitions Advanced Development program provides for Insensitive Munitions (IM) technology development and evaluations that allow SOF munitions to pass testing which includes bullet impact, sympathetic detonation, fast cook off, slow cook off and shaped charge test. Testing is in accordance with the United States Special Operations IM Testing Plan. Munitions product improvements are tested in accordance with command priorities.												
FY 2018 Plans: Continue proof of concept development and IM testing on various munitions. Continue full scale testing to satisfy safety requirements in Military Standard 2105C (Department of Defense Test and Method Standard: Hazard Assessment Test for Non-Nuclear Munitions, 26 Sep 2006).												
FY 2019 Base Plans: Continues proof of concept development and IM testing on various munitions. Continues full scale testing to satisfy safety requirements in Military Standard 2105C (Department of Defense Test and Method Standard: Hazard Assessment Test for Non-Nuclear Munitions, 26 Sep 2006).												
FY 2018 to FY 2019 Increase/Decrease Statement: Increase of \$ 0.095 million is due to minor adjustments.												
Title: Stand-Off Precision Guided Munitions (SOPGM)								11.738	2.460	0.694	8.040	8.734
Description: SOPGM provides for the integration and testing of service-common and recently developed precision guided munitions on SOF-unique platforms. This project received a congressional add in FY 2017.												
FY 2018 Plans:												

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Exhibit R-2A, RDT&E Project Justification: PB 2019 United States Special Operations Command			Date: February 2018			
Appropriation/Budget Activity 0400 / 7		R-1 Program Element (Number/Name) PE 1160431BB / Warrior Systems		Project (Number/Name) S800 / Munitions Advanced Development		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Continue integration and testing of precision guided munitions on SOF platforms. <b>FY 2019 Base Plans:</b> Continues integration and testing of precision guided munitions on SOF platforms. <b>FY 2019 OCO Plans:</b> Begin integration of low-drag, lightweight, multi-capacity precision weapons stores for SOF platforms. <b>FY 2018 to FY 2019 Increase/Decrease Statement:</b> Net increase of \$6.274 million due to a decrease of -\$1.766 million due to planned completion of Small Diameter Bomb (SDB) II development and increase of \$8.040 million for integration and test of multi-capacity weapons stores.						
<b>Title:</b> Maritime Precision Engagement (MPE) <b>Description:</b> Guided Rocket Systems provides for the engineering, integration and testing of service-common and recently developed precision guided munitions on SOF-unique platforms. <b>FY 2019 Base Plans:</b> Initiates the engineering, integration and testing of service-common and recently developed precision guided munitions on SOF-unique platforms. <b>FY 2018 to FY 2019 Increase/Decrease Statement:</b> Increase of \$2.305 million initiates the engineering, integration and testing of service-common and recently developed precision guided munitions on SOF-unique platforms.		-	-	2.500	-	2.500
<b>Title:</b> Aircraft Survivability Equipment (ASE) <b>Description:</b> The ASE program includes development of new systems, pre-planned product improvements/ upgrades of fielded survivability equipment, and continues development of flare countermeasures. <b>FY 2018 Plans:</b> Begin development of flare countermeasures to increase effectiveness against evolving threats. <b>FY 2018 to FY 2019 Increase/Decrease Statement:</b> Decrease of \$2.500 million is due to completion of flare countermeasures development.		-	2.500	-	-	-
<b>Title:</b> Counter Unmanned Aerial System (C-UAS)		-	-	5.100	-	5.100

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Exhibit R-2A, RDT&E Project Justification: PB 2019 United States Special Operations Command									Date: February 2018		
Appropriation/Budget Activity 0400 / 7				R-1 Program Element (Number/Name) PE 1160431BB / Warrior Systems				Project (Number/Name) S800 / Munitions Advanced Development			
B. Accomplishments/Planned Programs (\$ in Millions)							FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
<b>Description:</b> C-UAS is a complex mission, requiring a layered architecture of technical solutions to protect the Operator. These solutions are a mix of USSOCOM provided SOF unique equipment as well as Service developed capabilities.											
<b>FY 2019 Base Plans:</b> This funding will support the development, procurement and evaluation of High Velocity 40mm High Explosive Air Bursting Ammunition to be used with grenade machine guns. Improving the air-Bursting capability of this currently fielded weapon system will expeditiously provide kinetic Counter-Unmanned Aerial System (C-UAS) capabilities to the Warfighter.											
<b>FY 2018 to FY 2019 Increase/Decrease Statement:</b> Increase of \$5.100 million supports 40mm Low Collateral Damage (LCS) air-burst munition for use with MK-47 automatic grenade launcher to provide Kinetic Counter-Unmanned Aerial System (C-UAS).											
Accomplishments/Planned Programs Subtotals							12.242	5.491	8.730	8.040	16.770
							FY 2017	FY 2018			
Congressional Add: SOPGM							11.563	-			
FY 2017 Accomplishments: Continued integration of Small Glide Munition on SOF platforms while expanding capabilities of weapon for operational needs											
Congressional Add: LMAMS							5.809	-			
FY 2017 Accomplishments: Provides test and integration of aerial munitions onto a SOF-unique platform.											
Congressional Adds Subtotals							17.372	-			
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
• PROC/0203ORDN: Ordnance Items <\$5M	156.537	174.974	357.742	100.850	458.592	258.504	169.022	170.510	178.890	Continuing	Continuing
Remarks											

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2019 United States Special Operations Command		<b>Date:</b> February 2018
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S800 / <i>Munitions Advanced Development</i>
<p><b><u>D. Acquisition Strategy</u></b></p> <p>Munitions Advanced Development: Munitions and packaging redesign shall take place within government laboratories, as well as in industry, depending on the munitions. IM solutions shall be tested on a small scale for proof of principle. Planned product improvements are tested at Army, Navy, and Air Force test centers.</p> <p>SOPGM: Integration and developmental testing of precision guided munitions will be conducted using government laboratories or industry partners depending on the munitions for various SOF platforms.</p> <p>MPE: Integration and developmental testing of the launcher systems with follow-on government-led integration effort leveraging lessons learned from similar rapid integration efforts on other combat tested SOF platforms.</p> <p>ASE: Development of new systems, pre-planned product improvements/upgrades of fielded survivability equipment, and continue development of flare countermeasures.</p> <p>C-UAS: Development of evolving Electronic Countermeasures (ECM) capability to Counter Unmanned Aerial Systems (C-UAS) emerging threats.</p> <p><b><u>E. Performance Metrics</u></b></p> <p>N/A</p>		



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**Exhibit R-3, RDT&E Project Cost Analysis:** PB 2019 United States Special Operations Command **Date:** February 2018

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S800 / <i>Munitions Advanced Development</i>
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Product Development (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
MQ-9 LSDB/SDB II Weapon Mount Hardware Development	SS/ Various	General Atomics : NY	-	2.183	Sep 2017	0.974	Jan 2018	-		-		-	0.000	3.157	-
MQ-9 LSDB/SDB II Weapon Mount Software Development	SS/ Various	Boeing : MO	-	3.655	Aug 2017	-		-		-		-	0.000	3.655	-
MQ-9 LSDB Software Update	SS/ Various	Boeing : MO	-	0.300	Nov 2017	1.486	Jan 2018	-		-		-	0.000	1.786	-
MQ-9 LSDB/SDB II Universal Armament Interface Software Development	SS/ Various	Boeing : MO	-	4.500	Jan 2017	-		-		-		-	0.000	4.500	-
SGM Integration Congressional Plus Up	C/Various	Dynetics : AL	10.500	6.735	Jul 2017	-		-		-		-	0.000	17.235	-
Aircraft Survivability Equipment Development	Various	Various : Various	-	-		2.500	Jan 2017	-		-		-	Continuing	Continuing	-
LMAMS Development Congressional Plus Up	C/Various	Various : Various	-	5.809	Jul 2017	-		-		-		-	Continuing	Continuing	-
Counter Unmanned Aerial System (CUAS)	C/Various	Various : Various	-	-		-		5.100	Feb 2018	-		5.100	Continuing	Continuing	-
SOPGM Maritime	C/Various	Various : Various	-	-		-		2.500	Feb 2018	-		2.500	Continuing	Continuing	-
Prior Year	C/Various	Various : Various	2.933	-		-		-		-		-	0.000	2.933	-
<b>Subtotal</b>			13.433	23.182		4.960		7.600		-		7.600	Continuing	Continuing	N/A

Support (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
LSDB/SDB Support	C/Various	Boeing : MO	-	1.100	Feb 2017	-		-		-		-	0.000	1.100	-
SGM Support Congressional Plus Up	C/Various	Dynetics : AL	-	2.354	Aug 2017	-		-		-		-	0.000	2.354	-
<b>Subtotal</b>			-	3.454		-		-		-		-	0.000	3.454	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 United States Special Operations Command												Date: February 2018			
Appropriation/Budget Activity 0400 / 7						R-1 Program Element (Number/Name) PE 1160431BB / Warrior Systems				Project (Number/Name) S800 / Munitions Advanced Development					
Test and Evaluation (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
MQ-9 LSDB/SDB II Integration & Test	SS/TBD	Boeing : MO	-	-		-		0.694	Dec 2018	-		0.694	0.000	0.694	-
MQ-9 LSDB/SDB II Integration & Test Overseas Contingency Operations (OCO)	SS/TBD	Boeing : MO	-	-		-		0.000		8.040	Dec 2018	8.040	0.000	8.040	-
SGM Test Congressional Plus Up	C/Various	Dynetics : AL	-	2.474	Jul 2017	-		-		-		-	0.000	2.474	-
Munitions - Insensitive Munitions (IM) Evaluation	C/FFP	US Air Force Air Armaments Center : Eglin, AFB, FL	-	0.056	Jan 2017	0.058	Jan 2018	0.059	Jan 2019	-		0.059	Continuing	Continuing	-
Munitions - IM Testing	Allot	ARDEC : Picatinny Arsenal, NJ	-	0.307	Jan 2017	0.325	Jan 2018	0.227	Jan 2019	-		0.227	Continuing	Continuing	-
Munitions Advanced Development - Obtain Munitions Test Articles	C/FFP	General Dynamics : Canada	-	0.141	Jan 2017	0.148	Jan 2018	0.150	Jan 2019	-		0.150	Continuing	Continuing	-
Prior Year	C/Various	Various : Various	1.619	-		-		-		-		-	0.000	1.619	-
Subtotal			1.619	2.978		0.531		1.130		8.040		9.170	Continuing	Continuing	N/A
			Prior Years	FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			15.052	29.614		5.491		8.730		8.040		16.770	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&amp;E Schedule Profile: PB 2019 United States Special Operations Command

Date: February 2018

Appropriation/Budget Activity

0400 / 7

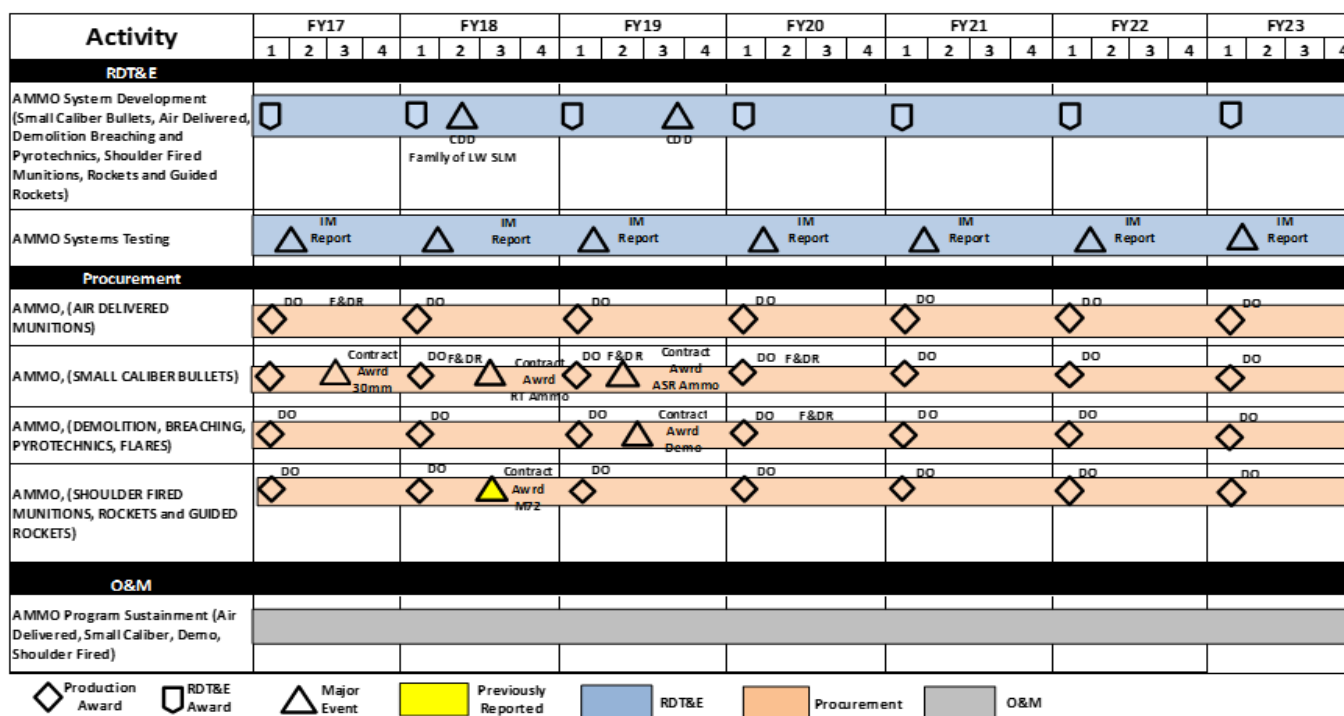
R-1 Program Element (Number/Name)

PE 1160431BB / Warrior Systems

Project (Number/Name)

S800 / Munitions Advanced Development

## Ordnance Items < \$5M Schedule



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Exhibit R-4, RDT&E Schedule Profile: PB 2019 United States Special Operations Command

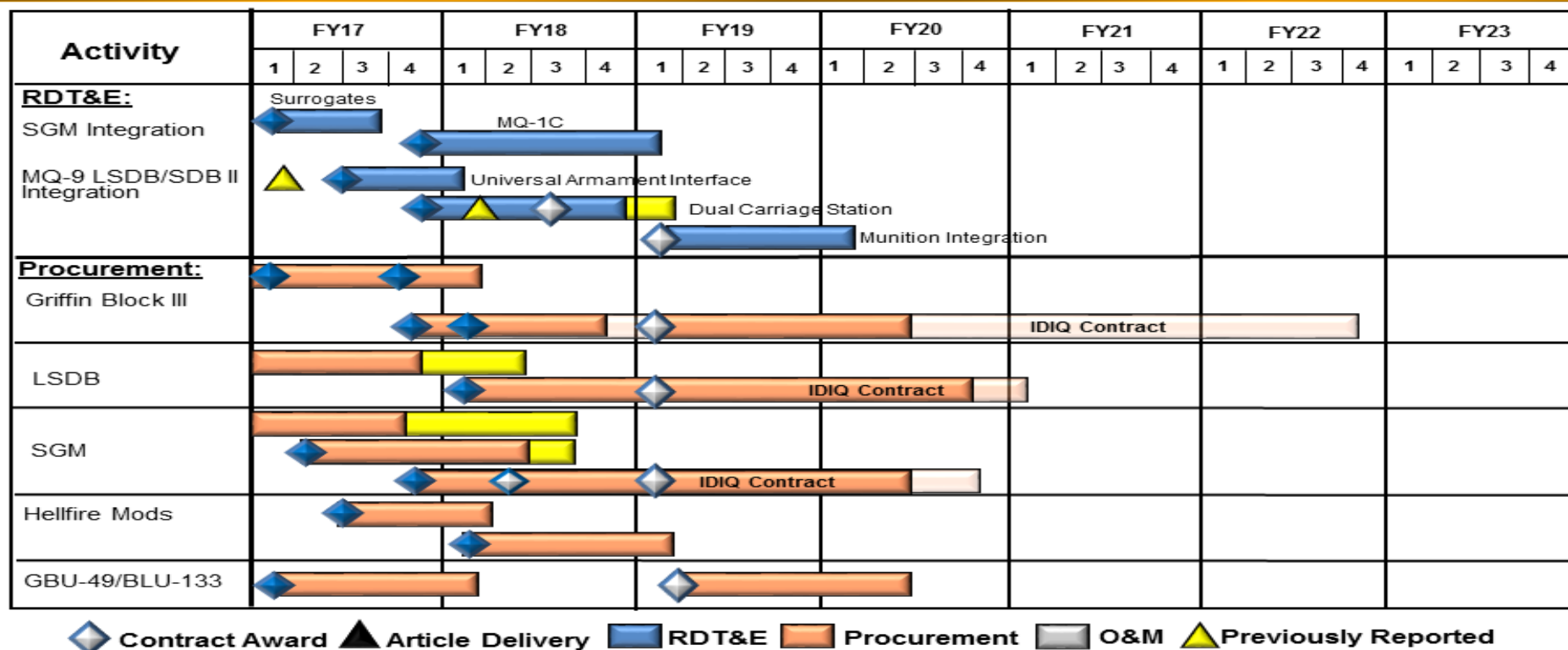
Date: February 2018

Appropriation/Budget Activity  
0400 / 7

R-1 Program Element (Number/Name)  
PE 1160431BB / Warrior Systems

Project (Number/Name)  
S800 / Munitions Advanced Development

# SOPGM Schedule



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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2019 United States Special Operations Command			<b>Date:</b> February 2018
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1160431BB / <i>Warrior Systems</i>	<b>Project (Number/Name)</b> S800 / <i>Munitions Advanced Development</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>SGM Integration</i></b>				
Classified Surrogate Aircraft Integration/Test	1	2017	3	2017
MQ-1C Integration/Test	4	2017	1	2019
<b><i>SDB II Integration</i></b>				
Universal Armament Interface Development	3	2017	1	2018
Dual-Carrage Station Development	4	2017	1	2019
Integration and Test	1	2018	1	2020